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THE NEW YORK JOURNAL OF MEDICINE,

AND THE

COLLATERAL SCIENCES.

EDITED BY

CHARLES A. LEE, M.D.

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TO READERS AND CORRESPONDENTS.

The Communications of Professor J. B. **Beck**, Drs. W. H. **Van Buren**, A. **Underhill**, J. H. **Griscom**, President **Hall**, Professor **Koeppen**, Dr. N. S. **Davis**, and several others, are necessarily deferred till our next.

Our acknowledgments are due to Dr. N. S. **Jarvis**, U. S. A., for his history of cases of wounds, the result of the late battle a Monterey, &c., which will find a place in our next number.

We regret that, owing to unavoidable circumstances, the publication of the Proceedings of the "New York Medical and Surgical Society," has been heretofore attended with many inaccuracies, and that justice has by no means been done to the very valuable reports made to that association. No one can regret this more than the Editor, who feels an earnest desire to do the most ample justice to every member of the profession, whether he stands to us personally in a hostile or friendly relation. Hereafter the "reports" will probably be "official," and entire accuracy thus be secured, which, under the past arrangement, could hardly have been expected.

As the perpetuity of this journal is now placed beyond all contingencies, may we not confidently appeal to the profession in New York, and especially those connected with our Hospitals and other public Institutions, to make its pages the medium of communicating the results of their valuable experience to the world?

We have received the following works since our last:—

A Treatise on Diseases of the Air Passages: Comprising an Inquiry into the History, Pathology, Causes, and Treatment of those Affections of the Throat called Bronchitis, Chronic Laryngitis, Clergyman's Sore Throat, &c &c. By **Horace Green**, A.M., M.D., etc. New York; Wiley and Putnam. 1846. 8vo., pp. 276.

Lectures on Natural and Difficult Parturition. By **Edward William Murphy**, A.M., M.D. New York: Samuel S. & William Wood. 8vo, pp. 281. 1846.

The Writings of Hippocrates and Galen, Epitomized from the Original Latin Translations. By **John Redman Coxe**, M.D. etc. Philadelphia: Lindsay & Blakiston. 8vo., pp. 681. 1846.

Dr. Hooper's Physician's Vade-Mecum; or a Manual of the Principles and Practice of Physic. Considerably enlarged and improved, with an Outline of General Pathology and Therapeutics. By **William Augustus Guy**, M.D., and with Additions by **James Stewart**, A.M., M D., etc. New York: Harper & Brothers. pp. 541. 1846.

Summary of the Transactions of the College of Physicians of Philadelphia, Vol. 1st, from November, 1841, to August, 1846. Philadelphia: 1846. 8vo., pp. 461. (From the Committee of Publication.)

Summary of the Transactions of the College of Physicians of Philadelphia, from September to November, 1846, inclusive. 8vo., pp. 57. (From the Committee of Publication.)

Transactions of the China Medico-Chirurgical Society, for the year 1845-6, Vol. 1st. Victoria, Hong-Kong: 1846. 8vo., pp. 80. (From the Society.)

The Water Cure, or Hydropathy. (From the British and Foreign Review.) By **John Forbes**, M.D., etc. Philadelphia: Lindsay & Blakiston. 1847. pp. 92. (From the Publishers.)

Quarantine and the Plague. Being a Summary of the Reports on the subject, recently addressed to the Royal Academy of Medicine of France; with Introductory Observations, Extracts from Parliamentary Correspondence, and Notes. By **Gaven Milroy**, M.D., etc. London: Samuel Highley, 32 Fleet Street. 1846. 8vo., pp. 71. (From the Author.)

Medical Education in the United States; an Address delivered to the Students of the Philadelphia Association for Medical Instruction, at the close of the Session of 1846. By **Alfred Stille**, M.D., Lecturer on Pathology, &c. Philadelphia: 1846. pp. 40.

An Introductory Address, delivered before the Medical Class of the University of Pennsylvania. By SAMUEL JACKSON, M.D., November 3rd, 1846. 8vo. (From the Author.)

An Introductory Lecture on the Reciprocal Obligations of the Medical Profession and Society. By JOHN P. HARRISON, M.D., Professor of Materia Medica in the Medical College of Ohio. Delivered November 2nd, 1846. 8vo., pp. 28. (From the Author.)

A Discourse on the Public Duties of Medical Men. Delivered as an Introductory Lecture at the College of Physicians and Surgeons in the City of New York, November 2nd, 1846. By JOSEPH MATHER SMITH, M.D. 8vo., pp. 30. (From the Author.)

An Address to the Class of the Medical College of Georgia, at the opening of the Session of 1846-7. Containing a Sketch of the Improvements in Medicine during the present Century. By L. A. DUGAS, M.D., Prof. of Phys. and Path. Anat. Augusta: 1846. 8vo., pp. 16. (From the Author.)

An Introductory Lecture, delivered in the Castleton Medical College at the opening of the Fall Session, 1846. By MIDDLETON GOLDSMITH, M.D., etc. 1840. 8vo., pp. 15. (From the Author.)

The following Journals have been received in Exchange:—

The London Medical Gazette.
The British and Foreign Medical Review.
The Provincial Medical and Surgical Journal.
The Dublin Medical Press.
The Dublin Quarterly Journal of Medical Science.
The London and Edinburgh Monthly Journal of Medical Science.
The Illinois Medical and Surgical Journal.
The New Orleans Medical Journal.
The Boston Medical and Surgical Journal.
The Western Journal of Medicine and Surgery.
The St. Louis Medical and Surgical Journal.
The Philadelphia Medical Examiner.
The Southern Journal of Medical Science.
The British American Journal of Medical and Physical Science.
The Southern Journal of Medicine and Pharmacy.
The American Journal of Pharmacy.
The American Journal and Library of Dental Science.
The Buffalo Medical and Surgical Journal.
The New York Annalist.
Western Lancet.
Bulletin of Medical Sciences.

ERRATA.

We regret that several inaccuracies occurred in printing the article of Dr. Carr, on Encephaloid, in our last number, besides the very important omission of the references to the plate.

Page 299, last line of first paragraph, for "*Normal*" read "*Stromal.*"

Page 302, sixth line from top, for "*David S. Rogers*" read "*David L. Rogers.*"

Page 204, first line of second paragraph, for "*it is forced upon us*" read "*forced upon us.*"

Same page, last paragraph but one, for "*dazzle the blind*" read "*dazzle to blind.*"

References to plate are as follow:—Fig. 1, fibular nerve; 2, popliteal nerve; 3, peroneal nerve; 4, anterior tibial nerve; 5, 5, 5, ganglia on muscular branches of the popliteal nerve; 6, a large ganglion on a branch of the sciatic nerve; 7, a lobule of medullary matter projecting through a circular opening in the capsule of the tumor; 8, masses of softened tuberculoid matter seen through a section of the tumor; 9, a section of medullary formation.

In the present No.—Dr. Batchelder on Tumor, page 30, sixteenth line from the bottom for "jugular fascia" read "jugular fossa."

Page 32, seventh line from the top, for "body inclined," &c., read "head inclined," &c.

THE NEW YORK

JOURNAL OF MEDICINE.

FOR JANUARY, 1847.

PART FIRST.

Original Communications.

Art. I.—*A Lecture on Practical Education in Medicine, and on the course of Instruction at the New York Hospital, delivered at the Hospital, on the 3d of November*, 1846. By John Watson, M. D., one of the Surgeons of that Institution.

Gentlemen: The Physicians and Surgeons of this Hospital, as most of you are aware, have for years past devoted much time and attention to the business of Instruction.

Ever since the first organization of our associated courses of teaching here, it has been usual to commence, at each season, with an Introductory Address. In conformity with this custom, and at the request of my colleagues, it becomes my duty on the present occasion to bid you welcome, and to preface our coming winter course of clinical instruction with a few general remarks.

The subject assigned to me for the present discourse, though not of my own choosing, is perhaps the most appropriate that could have been selected for the occasion. I have been called upon to address you on the subject of Practical Education; and in connection with this, to speak of the New York Hospital as a clinical school.

The task imposed upon me I have heartily accepted, doubting only my ability to execute it properly, and regretting that a theme so worthy of serious consideration, has not been assigned to some one more capable than myself of presenting it to you in a lucid and impressive manner.

But, gentlemen, I have first to bid you welcome. And I am at a loss how to perform this portion of my duty more becomingly, than by stating, in a few words, the fare we have in readiness for you.

The physicians and surgeons of large hospitals, whether specially appointed for the purpose or not, rest in some measure under two obligations to their fellow practitioners. In the first place, they are expected to employ the means at their disposal for extending the bounds of medical knowledge, by recording and communicating the result of their experience. In the second place, they are looked up to as the proper teachers of all the practical details of the profession.

These duties, it is true, so far as we are here concerned, are as yet merely implied. Nevertheless, these implied duties, and particularly that of teaching, are every day becoming more imperative. For it is only by hospital and bedside instruction that students can ever expect to become qualified for entering upon the practice of the healing art, either with credit to themselves, or with safety to their patients.

Aware of these reasonable expectations on the part of the profession, and impressed with the paramount advantages which the liberal and enlightened Governors of this Institution have placed at our disposal, my colleagues and myself have spared no pains to render it available, by furnishing the students with every facility for acquiring a practical knowledge of the nature and treatment of disease.

In pursuance of this object, the wards of the Hospital are visited at stated hours; and during these daily visits the students have access to all the cases excepting only such as are likely to be injured by fatiguing examinations and inquiries. Clinical remarks are daily made in the wards; and for fuller expositions of important cases, each student, on inquiry, can have access to the Hospital Case Books. Several series of Clinical Lectures on the details of hospital service are every year delivered in this Theatre, illustrating in this way most of the important points of pathology and therapeutics.

The students are kept informed of the results of our numerous consultations, and now and then admitted to attend them. The indications and modes of proceeding in our surgical operations are explained to them. They have the use of our valuable library, rich in every department of medical lore. Among not the least of their privileges, they are furnished with opportunities for prosecuting the study of pathological anatomy, by the inspection of our pathological cabinet, and by attending post mortem examinations. And finally, several of the physicians and surgeons on duty here are in the habit, at seasons in which the colleges are not in session, of delivering every year associated courses of lectures on most of the specialties of medicine and surgery, and of illustrating these lectures by models, drawings, and pathological preparations, as well as by frequent reference to cases under treatment in the wards.

Such, gentlemen, is the fare we have to offer you, and to such we bid you welcome.

In reflecting on the subject of practical education, it has occurred to me, that what we are apt to consider one of the greatest blessings of the present age—the general diffusion of knowledge—is not quite so great a blessing as it might be. For acquiring, as well as for imparting knowledge, we trust too much in books. Hence, though men are at present better read than formerly, it is questionable whether they are in the same proportion better educated.

Learning and education are by no means synonymous terms. By education is meant the development of the faculties, mental and physical, for exertion, for endurance, for observation, reflection, investigation, discovery and invention. By learning, is meant the acquisition of such knowledge as others have already been acquainted with. The difference between the two is immense, and should never be forgotten by those who are engaged in the business of instruction.

In the modes and degrees of learning, too, there are very essential distinctions. To learn to know, is one thing—too often thought the all-sufficient business of the learner. To learn to do, is a much more important, a much more difficult matter. This is the learning which books cannot teach. This is practical learning, and it is different, both in essence and degree, from the speculative knowledge obtained from the mere opinions or words of other men.

Abstract teaching cannot impart to us the knowledge of things. The utmost it can do, is to help us to imagine how perchance things may be. It is, therefore, to be commended to our attention, only when the things of which it treats are beyond our reach; or as the simple friend that supplies us with notes of introduction to those facts with which we are desirous of becoming intimately acquainted.

He who trusts to books, or to the opinions of others, for all that he knows, is as the blind man, who, by hearsay, has been taught to discourse most learnedly about the light of heaven, a thing with which he is nevertheless hopelessly unacquainted. Learned words, and conventional expressions, too often mask the most confused perceptions.

To the youth who is about to prepare himself for a profession, there are certain studies, which, in view of the shortness of human life, he may entirely overlook. There are others, which, for the same reason, demand of him nothing more than a speculative acquaintance. There are again others, having a greater claim upon his attention; yet not so essential as to demand of him more than a superficial practical knowledge. But those studies which are to prepare him for the business of his profession, and by which his course through life is to be characterized for good or bad, it would bē worse than folly to pursue, only so far as they are to be learnt through books, or the teachings of others.

In regard to our own profession, it has been often and justly observed, that the student, in order to be fully prepared for it, has to acquire a much more extensive and varied stock of knowledge, than for any other pursuit. The acquisition of languages, the study of the exact sciences, of natural philosophy, of mental philosophy, of natural history in all its departments, and above all, the study of man, of man intellectual, moral and physical, of man in his social relations, man in his propensities, his passions, his habits and his follies, all of these have to precede, or to accompany the study of the various branches of medicine strictly so called.

And then these branches, how numerous, how diversified, how exacting of time and labor! Anatomy, the first of these, if followed through all its ramifications, descriptive, general, topographical, comparative, microscopic, philosophical, &c., is in itself the study of a lifetime; and when pursued only so far as to subserve the purposes of an accomplished practitioner, demanding a vast amount of application. Physiology, too, that offset of anatomy, well worthy of all the attention that has ever been bestowed upon it, is to be acquired only by the most patient and diligent application.

And after this, and closely associated with it, comes Pathology, marking with cautious eye the multifarious irregularities of vital action, and the innumerable agencies that give rise to these; the resisting and self-adjusting forces of the living frame; the yielding of the body beneath the burthen of disease or age; and the traces of disorder and dissolution, as detected in the several organs after death. Such is the study of Pathology, a study sufficiently attractive, and sufficiently extensive, for the whole of your future years, and for acquiring even the elements of which, the years assigned to your course of preparatory studies are scarcely sufficient.

And now comes the most essential of all, the study of Therapeutics, the *modus medendi*. In pursuit of this, you have not only to familiarize yourselves with the various agencies that directly or indirectly influence the living body in enabling it to resist or overcome disease; you must also obtain an intimate knowledge of the times and circumstances under which these agents are most likely to operate with injury or advantage. In a word, you must learn not only how to bring into requisition the *materia medica* and *armamenta chirurgica*, but the whole of the details of medicine and surgery.

Numerous and diversified indeed are these branches of medical education! And though some of them are not to be so thoroughly pursued as others, it is still well to remember, that none of them are to be studied merely in the abstract. Into all of them you should be practically initiated, and with some of them you must be profoundly imbued. For, be it remembered, that medicine, strict medicine, is not so much an abstract science, as it is the application of certain general principles to practical details. And singular as it may seem, few circumstances have tended more directly to retard the progress of medical knowledge, than premature attempts on the part of writers and teachers to give to it a strictly scientific cast.

It was by such attempts, in ancient times, that the study of medicine was transferred from the temples of Esculapius, those early hospitals in which Hippocrates and his ancestors had acquired their knowledge of it, to the scholastic halls of Athens and Alexandria. It was by such attempts that, in the middle ages, the student withdrawn from the camp, the hospital, and the bedside, was immured in cloisters, or confined within the walls of Monastic Universities. It is this same effort that, in modern times, has mystified and confused the profession with a host of dreamy speculations under the specious name of systems of medical philosophy. And it is this same effort that, up to the present day, has aided the aspirant to while away his years of preparation in lecture-rooms, and in the study of books and opinions, instead of employing some portion of this time in the observation of facts, the exercise of his own faculties, and the development of his own resources.

The practice of medicine is an art, as strictly and as literally such, as the art of building, of printing, or of metal working; and the more our systems of education are made to conform to this view of the matter, provided the principles of this art are not in the meanwhile neglected, the better they will subserve the purposes of the profession. The joiner, the shipwright, and the smith, initiate their youth into the magic uses of the saw, the hammer, and the file; and they would laugh at the philosopher who should attempt to convince them that these youths, by studying the principle of mechanics, of the wheel-axle, of the lever, the screw, or the inclined plane, as taught in books and lecture-rooms, might be saved from the disagreeable necessity of plying their bones and muscles in the work-shop.

Like those engaged in the study of other pursuits, the student of medicine must be taught to exert his own powers; and before entering upon the responsible duties of his profession, he should be made to give evidence of practical acquirement. For, without this, his principles will serve him to but sorry purpose at the bed-side. They may impart to him the semblance of knowledge; they may serve him in discourse; they may enable him to pass, even with some eclat, through the ordeal of a green-room examination. But unsupported and unenlivened by personal observation and experience, they must gradually escape him; or, in the long run, serve only to mislead him by the flattering, though false, conviction of being really master of all that he remembers.

In the year 1831, after devoting more than three years to preparatory studies, I entered upon my duties as one of the Junior Dressers of this Hospital, and in a day or two after my appointment, I was requested to take charge of a patient who had been seized with an obstinate vomiting. As yet unacquainted with practical details, I stood for some minutes at the bedside, revolving upon the remedy most likely to be of service in the case. While I was thus employed in thinking, one of my associates, whom I had no reason to look upon as my superior, suddenly entered the ward, and directed the nurse to apply a mustard plaster over the pit of the patient's stomach. I saw at once the propriety of the measure. I was struck with the promptitude of the prescriber. My self-esteem was, for a time, humbled; but the lesson, I believe, has not been lost upon me.

A couple of youths, fresh from their studies, were directed here, many years ago, to apply cupping-glasses to the temples of a negro woman. The cups were at first applied moderately heated; but not adhering, they were held over the lamp until nearly roasting hot, and then applied anew. Still they would not stick. The process was again and again repeated, all to no purpose. The poor woman roared, and the poor lads labored, until the Superintendent of the Hospital, attracted by the noise, at length relieved her from her tormentors,—archly observing to them as he entered the ward, that "they had better practise on each other until they had learned how."

Not long since, as is my frequent custom, I requested some of the young men accompanying me through the wards, to examine and report upon the nature of an inflammatory swelling. The first that came forward was, as I afterwards ascertained, one who had just passed the ordeal of his examination. He could detect nothing peculiar in the case. The second was a student of scarcely a year's standing, who had previously examined similar cases. He pronounced the swelling to be an abscess already in need of the lancet. I allowed him to apply this, and to the no small mortification of the other, he gave exit to a large collection of purulent matter.

The practice of our profession is made up of details like these, and a knowledge of these details, be assured, is never to be reached through lectures, or deduced from abstract principles. The physician or surgeon worthy of the name, is such, only so far as he is able to turn to advantage those innumerable and ever changing little circumstances of daily experience which language cannot teach. The senses of the student, as well as his intellectual faculties, require to be thoroughly and systematically indoctrinated. The study of principles may give employment to the mind, either in the closet or the class-room; but the hospital, and the bed-side, are the schools for the senses. I had almost said the only schools:—there are others

I remember to have heard an anatomical lecture, many years ago, at the University of Glasgow. It was just after the period of the Burk excitement. The learned professor, in want of what is now fashionably called *Materiel*, was attempting to demonstrate the muscles of the human body, by means of wires drawn across the skeleton. The students of Scotland, in those days, saw but little of anatomy, and knew less of the use of the scalpel. The interruption there was but temporary. We, too, have had our Doctors' Mob. But as yet, our teachers have never been reduced to this whimsical expedient of the wires. Our students, however, for all the practical anatomy they are called upon to know, might as well have Burks among them always. A practical knowledge of anatomy should not be merely recommended.

The business of Medical Education has, I admit, within the past few years, been materially improved. But I may venture to affirm that it is destined, in this country, to undergo still more important alterations for the better, before it meets the full and reasonable demands of this jealous, exacting and enlightened age.

The course of education in our well appointed colleges—and especially in the rival schools of this city (rivals be it ever hoped only in their ability for usefulness)—is every year becoming more and more elevated. The time, I trust, will soon come when these useful institutions may rise above the obstacles that still prevent them from placing their curriculum of study on a level with that of the most reputable schools of Europe.

And let it not be said (for the charge is a libel on the people of this nation) that we are not prepared for such a system. Are our people less intelligent than those of other nations? Are they less abundantly supplied with the conveniences, the comforts, or even the luxuries of life? Are they less disposed to patronize talent and acquirement? I speak not of the residents of our larger cities, I speak of our people as a nation. Gentlemen, the medical institution which first comes up to the reasonable demands of the profession in this respect, and possessing the facilities, requires of its graduates practical acquirements equal to those at present enjoined upon the students of European schools, will find its interest in the measure. We hear, in all quarters, loud and lamentable outcries against the reign of quackery and imposture. But the rifest and rankest quackery of this land, is the quackery of half-educated graduates in medicine.

But I have said that the standard of medical education has of late years been rapidly advancing here. Let us inquire in what respect; and see what remains to be effected. Numbers and noise indicate nothing but commotion. Let us look for the indications of progress.

In the first place, then, our youth, prior to commencing their professional studies, are better instructed in the elements of general knowledge than formerly. Although not required to have obtained a classical education, the great mass of them at present are more or less acquainted with the classics. Those resident in this city, are nearly all graduates in letters. Judging from those that I have had charge of as private pupils, for the last ten years, I should say that nine-tenths of them had received a liberal elementary education.

This fact, of itself, speaks much in favor of fixing upon an elevated standard of preliminary acquirement; and of excluding from the matriculation-book all applicants whose habits of life, or whose want of preliminary education, is such as to disqualify them from engaging in the profession.

In the second place, as evidence of progress for the better, although the regularly prescribed time for public teaching is still confined to four months; yet by extra and accessory courses, the annual term of public teaching in this city has, in effect, been extended of late years to between seven and eight months. And during the recess, the opportunities for practical improvement are, in some respects, greater than during the winter term.

With a lengthened regular term, and with fewer public lectures daily, the students from a distance who have not the means of passing all their time in the city, would have some few hours every day to devote to the Hospital, the Dissecting Room, the Laboratory, the Cabinets of Materia Medica, of Pathological and Comparative Anatomy, and of Natural History,—not to speak of necessary time for meals, and no less necessary time for recreation—

> Neque semper arcum
> Tendit Apollo.

In the next place, as evidence of progress, the branches of medical education that have always been considered essential, are at present taught more efficiently than formerly.

As to anatomy, it is true, dissections have as yet never been enjoined. But the students, in this respect, are in advance of the requirements of the schools. The public dissecting-rooms are tolerably well occupied; and private dissecting-rooms have been well supported. The principal improvements in reference to anatomy are, the rise of private schools for dissection, the practical spirit of most of the students, and the greater attention now paid to surgical anatomy.

The subject of Materia Medica, as far as it can be taught by lectures and class-room demonstrations, is at present well managed. The student, however, might, with advantage, be called upon to familiarize himself still farther with medicines, by frequent inspection of the articles in their various forms and stages of preparation. He should be somewhat further instructed in practical botany, and be able to point out our indigenous medicinal plants. In a word, he should be so taught as to be at no loss, whether in the field, the pharmacy, or the warehouse, to select such articles as he may be in need of. I put it to my fellow-practitioners: Who of them can do this? Or who, when asked by some anxious mother to examine the medicine of his own prescribing, has not often had occasion to cross himself, and exclaim, "God help me, I am ignorant of all this!"

Our courses of chemistry are sufficiently full and admirably illustrated; and of late much attention has been paid to the analysis of organic substances. The practitioner of the present day, in view of the multitude of other investigations that have a more direct claim upon his attention, is not usually required to be a proficient in chemical manipulations. But even in this branch, what is learnt should be learnt in a practical manner. The pupil, with test-glass in hand, should know how to manipulate for himself. This mode of teaching has begun, and should become more general.

No part of medicine has been taught with greater zeal in this city than midwifery. It is the fault of the student if he is not a proficient in this before receiving his degree. Midwifery with us is, indeed, one of the foremost branches of the profession. And while that supercilious body, the College of Surgeons of London, has been refusing to hold communion with obstetricians, the hero of the vectis on this side of the water has been marching in the foremost ranks of professional preferment.

Two hundred years ago—and there was no such thing as an obstetrician! Those ancient matrons, the midwives, even until long within that period, had it all to themselves! But now, throughout the length and breadth of this land, I know of no such thing as a reputable midwife.

Obstetrics, as a distinct branch of our profession, was unknown until Louis XIV., the great patron of this as of other of the fine arts, first brought it into vogue, by commending it to the ladies of his court. And not long ere this, a certain Dr. Veit of the city of Hamburg, was actually brought to the stake, and roasted alive, like any other pagan, for having, under the disguise of quoif and petticoats, simply attended the mysteries of the lying-in service, and assisted in the cry of—*Age, Lucina!*

Imagine, for a moment, this illustrious martyr in the cause of midwifery still before you. What a subject for the chisel or the pencil! How worthy of embodiment by some able hand among the distinguished members of our American Art-Union! We have seen the walls of college-halls illuminated in fresco or in oil, with Democritus at his anatomical investigations, Hippocrates rejecting the bribes of the Persians, Socrates in the act of swallowing his hemlock-draught; and we might fancy, for the same purpose, Seneca submissively invoking death, by opening his own veins; Desgenettes spurning the orders of Napoleon with the heroic reply that his office was to save life, not to take it; or Larrey, transferred in safety from shoulder to shoulder over the falling bridge of Berezina, by a grateful soldiery, amid the horrors of surrounding slaughter. But, gentlemen, there is not one of all these noble themes so worthy of selection for adorning the halls of our colleges, as the history of this martyr of Hamburg.

We have indeed but very few martyrs for gracing the annals of medicine. So far as I can at this moment call to mind, I know of not another. For, Servetus had been dabbling in theology, and was burnt on that account, rather than for his alleged discovery of the circulation of the blood. Let us then cherish the memory of this unfortunate German. And should the saucy fellows of the College of Surgeons ever again turn up their noses, or attempt to twit our worthy obstetricians, may the latter hold up to them this glorious example of devotion to their cause, and exultingly demand of them anything to compare with it.

Truly, midwifery is a great subject, and in high consideration here. And yet even here all are not aware of this. I have heard of Americans leaving their own schools, for the sole purpose of investigating some of the specialities of this department on the other side of the Atlantic. This, by way of episode. Let us now return to our inquiry.

Last in order come the principles of Medicine and of Surgery. In these two great departments of medical education, our colleges are fully up to all the improvements of the day; and in connection with the usual teaching of principles, they have made a strenuous, and in the sight of many a successful effort to introduce practical teaching also. For this latter purpose a series of dispensary services has been instituted, which has added much to their popularity, and has, no doubt, in some respects, increased their efficiency for useful instruction.

The introduction of dispensary services constitutes the latest feature in the character of the medical schools of this country. And as these dispensaries have for a year or two past been the subject of much general remark, I beg leave to say a word or two in regard to them before proceeding further.

By clinical teaching, or simply *clinique*, is properly meant, practical teaching, in connection with observation at the bed-side. Instruction of this sort, says M. Raige Delorme, having for its *object* the detection and recognition of disease, the tracing of prognoses, and the considerations of treatment; and having for its *text* actual disease, as witnessed in individual examples; can only well have place at the bed-side.

It might be superfluous, says he, to point out in detail the requisite and necessary conditions for a proper clinique. They may be summed up as follows:

1st. A sufficient number of cases for teaching, and for study; which should be so brought forward as not to dissipate the attention of the student; and so studied, examined, and discussed, as to be thoroughly understood.

2d. Convenient apartments for examining and treating patients.

3d. Special apartments for holding conferences, for consultations, and for surgical operations.

4th. A room for prosecuting post-mortem inspections, and all the means proper for facilitating anatomico-pathological research.

The study of medicine and surgery by such men, observes this excellent writer, should constitute the completion of every medical education. For, says he, it is at the bed-side of the patient that the pupil is enabled to search for the proof of the theories, and where he begins to apply the general rules, which have been imparted to him elsewhere. Deprived of clinical instruction, other learning the most solid and extensive, will only serve to demonstrate to him the difficulties of an art, which, like all others, is only to be acquired by the study of examples.

Now, I need not say, gentlemen, that these requests, and these aims, are not and cannot be fulfilled by dispensary exhibitions. Still, to dispensary service, when confined to the management of such affections as legitimately belong to it, there is no direct objection. The student may in this way be made familiar with much that is of interest to him. He should be cautious, however, not to place his main reliance for the practical study of disease, upon the opportunities he may chance to enjoy in this way. College Dispensaries should never be held up as sufficient to supply the place of Hospitals. And if thus held up, I most sincerely believe, in common with many of your professors, and with the great body of practitioners here and elsewhere, that they must do much indirect mischief to the cause of sound practical instruction, by withdrawing the student from the only places in which such instruction can be properly imparted.

The college *cliniques*, as they are now called, were first started in a neighboring city, where hospital privileges had been so much restricted as to be of little service to the winter students. As an expedient for supplying this deficiency, they were unquestionably acceptable, on the same principle that half a loaf is better than no bread. They were at first called by their true name; but this attracting little notice, was soon altered. The example thus set, and the title then assumed, were copied by the schools of other places. In the country institutions, these dispensaries have been of real service; and in conducting them, these schools have placed themselves fully on a level with those of the larger cities.

It is somewhat remarkable, however, that, in this city, where hospital privileges are ample and almost unlimited, these exhibitions soon became so popular, as, for a time, to have entirely supplanted clinical instruction. There were probably between six and seven hundred medical students in this city during the last winter. I was on duty in the second surgical department of this hospital, during the greater part of that time, and strange to say, it was a rare thing to see the face of a single student in any of my wards during the whole of my attendance.

I shall not attempt to notice the several unsatisfactory reasons that have been assigned for this state of things, reasons which scarcely serve to shield the only true and sufficient one. The *clinique epidemic* of the colleges, as my friend Dr. Bell has happily expressed it, was last winter at its height. The students, one and all, were affected by it, and the Hospitals were forsaken.

It is to be presumed that, ere this, the disease has materially abated. Such, I am told, is the fact in Philadelphia, where it first broke out. The University of Pennsylvania, and some of the other schools there, have already abandoned their dispensaries, and are now supplying their second course students with Hospital Tickets, at their own expense. And if hospital attendance there is beyond measure superior to their misnamed *cliniques*, what are we to think of the facilities for practical instruction enjoyed by students within the walls of the New York Hospital!

Gentlemen, if I know my own mind, I have no disposition to draw invidious comparisons; or to speak of the relative advantages of rival cities or of rival institutions. I should rejoice to see a well endowed hospital connected with each of our flourishing and useful colleges, in which the students might have ample instruction in the practice of the profession, from their own teachers. But until such hospitals can be provided, it is both interest and policy on the part of these schools, as well as on the part of the students, to turn to as much account as possible the clinical teachings of this Hospital.

This has never yet been done. I fear the disposition to do it has not always been sufficiently manifested. I have heard it announced amidst an assembled multitude of young men from every quarter of the United States, that the New York Hospital is badly managed; and that the students of this city are, or rather were, to have access to a much better institution. The time may come for the fulfilment of this promise. But, in the meanwhile, we may have an opportunity of saying a few words in our own defence. We will begin this, with a summary view of the rise and progress of clinical teaching.

In early times, when the practice of medicine constituted a portion of the mysteries of heathen mythology, it was doubtless taught, as other callings still are, by examples. In the circuit of the private preceptor, and in the wards of infirmaries, it has ever since, to some extent, been taught in the same way. But in Universities and other scholastic institutions, from their origin, soon after the decline of Arabic learning, until towards the commencement of the present century, practical education in medicine appears to have been entirely overlooked.

The attention of the profession in regard to this important business, was awakened by slow and almost imperceptible degrees. At the present time it is somewhat difficult to fix upon the individual to whom the honor of originating it shall be definitively awarded. In several of the great schools of Europe, much attention had been given to clinical instruction prior to the commencement of the present century. But as an essential part of education, it is among the innovations of the present age,—and in this country, as yet, it is only beginning to receive that degree of attention to which it is justly entitled.

Although some earlier attempts at this mode of teaching may have been made at Padua, at Utrecht, and elsewhere; yet to Francis de le Baë, better known under the name of Sylvius, who filled the chair of Practical Medicine in the University of Leyden, from 1658 to 1672, we are probably indebted for the first well marked effort at combining clinical with theoretical instruction. But the celebrated Boerhaave, who afterwards occupied the same chair in that University, in the early part of the last century, gave to this mode of teaching the impetus which has continued to influence it for the better ever since.

The example of the great school of Holland was followed, about the middle of the last century, by the University of Edinburgh; where the name of Cullen is associated with the earliest attempt at clinical teaching in Great Britain. At the University of Vienna, about the same time, the same system was introduced by Van-Swieten, De Haën, and Stōll. It was not fully adopted at the school of Medicine at Paris, until the period of its re-organization in 1795; when under the charge of Corvisart, Pinel, and Desault, it became an essential portion of medical education. And there it has ever since been cultivated with unparalleled ardor and success, by a galaxy of brilliant men; who, mainly through the influence of their practical teaching in the hospitals, have raised the school with which they are connected to be by far the greatest of the present age.

At London and Dublin the introduction of this mode of teaching appears to have been of later date. Sir Astley Cooper, in commencing his career, was unacquainted with it, and began to lecture on Surgery, as he himself had probably been taught by Hunter and others, without the accompaniment of practical illustrations. He was not, however, long in discovering the signs of the times. And to the force of his bright example at Guy's and St. Thomas's, more perhaps than to that of any other individual, the people of Great Britain and Ireland owe the remarkable revolution that has already been effected there in the whole system of medical education.

At this moment there is scarcely a hospital of any magnitude or importance in England or Ireland, that has not associated with it a well-organized medical school. In these institutions clinical teaching constitutes, as it should ever do, the most essential portion of medical education. The schools there are no longer independent establishments. They have become appendages to the hospitals.

The founders of the earliest schools in America had mostly received their professional education at Edinburgh. The organization of our own schools was accordingly much after the pattern of that once renowned and still popular institution.

Among the first efforts on the part of the projectors of the medical department of the Edinburgh University, was one for establishing an Infirmary. In consequence of their exertions the Royal Infirmary of that city was founded in 1738, and was soon afterwards in a condition for the reception of patients. Here Cullen, prior to 1756, the year of his appointment to the chair of Medicine in the University, had already begun his clinical lectures, attracting to his wards young men from every part of the civilized world, and building up a school to be for many years the first in magnitude, as it was first in the talents of its teachers.

As at Edinburgh, so in this country, and particularly in this city—one of the first efforts on the part of the projectors of the medical school connected with King's, or, as it is now called, Columbia College, was for establishing the New York Hospital.

In the year 1769, through the exertions of Dr. Baird, Middleton, and Jones, professors in our first school of medicine, aided by some of the most public-spirited of their fellow citizens, a subscription for this object was undertaken. The Society of the New York Hospital was organized and chartered, in 1771; and in 1773, was laid the foundation of the building which we are at this moment occupying. But interrupted by a conflagration, and by the subsequent events of the Revolution, this house was not in a condition for the reception of patients until the 3d of January, 1791. Ever since that period the Governors of the Hospital have been enlarging its accommodations, and extending its sphere of usefulness, in pace with their pecuniary resources, and the increasing necessities of this growing city.

It is not my purpose on the present occasion to trace the general movements of practical education beyond our own borders. I have not again to speak of it except so far as it has been connected with this Hospital. Here, and up to the opening of the college dispensaries, here only, have the students of medicine in this city been taught to look for it.

The Society whose charitable purposes have been so admirably carried out in establishing this Hospital, and which, through a Board of twenty-six Governors, has still the ultimate control of it, is composed of some of the most influential, enlightened, and benevolent of our fellow citizens.

The Board of Governors have the immediate charge of all that relates to the Hospital proper, as well as to the Lunatic Asylum at Bloomingdale, which is a part of the same institution. They have the appointment of all the officers, medical as well as others. They have the management of the finances, and the care of the property. And through their several committees, they supervise the reception and discharge of patients, the internal economy of the several departments, and the comfort and accommodation of the inmates. In a word, they exercise the most watchful and scrutinising supervision over all that concerns the prosperity of the Institution, and the purposes for which it was originally founded.

The funds of the Hospital are derived in part from a State annuity, in part from the general government of the United States for the board of a hundred seamen, and in small part from pay patients. The Governors, the attending Physicians and Surgeons, and their assistants, receive no remuneration either directly or indirectly for their services. And with the exception of a few salaries to the superintendent, clerk, nurses, and servants, the whole of the moneys accruing to the institution, are appropriated to the support and maintenance of the sick.

The three principal Buildings of the Hospital proper, can at present accommodate about 390 patients. The average number for the year past has not fallen far short of 300. The forms of disease under treatment are as multifarious as the characters and habits of our heterogeneous populace, collected as they are from all quarters, and almost every nation of the globe. The cases are for the most part acute and severe. The only diseases expressly excluded, and for which accommodation is elsewhere provided, are the contagious and eruptive fevers.

The institution is under the professional care of four physicians and six surgeons, who arrange their respective terms of attendance so as to have one physician and two surgeons continually on duty. The patients are grouped into three services or divisions; one Medical and two Surgical Divisions.

The Medical Division, including rather more than one third of all the patients, occupies the whole of the new or North House, and two wards in the north wing of the central or Main Building. The First Surgical Division occupies all the wards of the Main Building excepting two in the north wing. The Second Surgical Division occupies the whole of the south, or as it was formerly called, the Marine House.

To each of these Divisions are attached a House Physician, or House Surgeon, and two Assistants. These junior officers receive their appointment at the nomination of the Attending Physicians and Surgeons, to whom they are directly responsible. They serve by gradation, for three years. During the first year, in the capacity of Junior Assistant, they accompany the Attending Physician or Surgeon in his daily visits, they attend to cupping, leeching, the administering of baths, and the application of galvanism; they have their share in dressing and bandaging; and they transcribe into the case-book the history of every case in their respective divisions. During the second year, in the capacity of Senior Assistant, besides attending to a portion of their former duties, they draw up the minutes of all the cases, they perform venesections, they make the autopsic examinations, and they visit patients throughout the town who apply for admission, with the view of determining whether such applicants are proper objects for the charity of the hospital. The Senior Assistant must be a graduate in medicine, he is occasionally called upon to perform the duties of the Resident in the absence of the latter. During the third year, in the capacity of House Surgeon or House Physician, they reside in the Hospital, and are only allowed to be absent by express permission. They have now to carry into effect the directions of the Attending Physician or Surgeon, to supervise the registry of cases, to keep a record of all the admissions and discharges; to visit the wards of their respective divisions at least every morning and evening. They are present at all consultations, and are allowed to prescribe for emergent cases, and for others, at the discretion of the Attending Physician or Surgeon, to whom they are always responsible.

By this well ordered and most thorough training, the young men who pass through these gradations of duty, are at once prepared to take high rank as accomplished and experienced physicians.

I need not speak of the Attending Physicians and Surgeons individually. With most of these the students, during the coming winter, will have abundant opportunity of becoming more or less acquainted.

Associated with the Hospital, we have also a consulting Physician, and two Consulting Surgeons. These appointments are honorary; and are given in acknowledgment of the former valuable and long continued services of those who held them.

And here, fondly would I dwell for a few moments, did time permit, to recount the labors and triumphs of these honored gentlemen, now among the fathers of the profession. But their deeds are already known, not soon to be forgotten. Long may they continue to enjoy their well-earned, and far-spread reputation.

> "Urit enim fulgore suo, qui prægravat artes
> Infra se positas: extinctus amabitur idem."

There are also other names connected with the history of this Hospital, no less worthy of the passing tribute; and among them, some, for ever associated with the history of medical sciences. The youth who now hears of them perhaps for the first time, may have in future years sufficient reason for remembering the names of Bard, of Middleton, of John Jones, of Elihu H. Smith, of Edward Miller, of Watts, of Mitchell, and of Hosack, among our former physicians; or of Richard Bayley, Borrowe, Seaman, Kissam, and Post, among our former Surgeons. The odor of these names is still fresh among us. Here may it survive, to be transmitted, with increase of admiration, to our successors!

☞ We now come to the business of Hospital Instruction.

The main object of the founders of this Hospital was, doubtless, the commendable one of relieving the suffering and afflicted. But the mode of its origin, the character of the institution after which it was modelled, and the custom of its medical officers from the commencement, leave no room to doubt, that foremost among the incidental benefits expected from it, was the means of affording practical education in medicine and Surgery.

Under this conviction it has ever been the practice of the Physicians and Surgeons on duty here to allow the students to accompany them through the wards, to explain the cases, and to give brief and unstudied, though practical, and highly useful expositions of disease, at the bed-side. This long continued custom has been attended with many beneficial results. And there are at this moment practitioners in every part of the Union, who can look back upon the familiar and unceremonious lessons thus listened to, with the liveliest recollections; and with the full conviction of having derived greater benefit from them, than from all the abstract discourses on the theory of medicine they have ever heard.

These useful and informal bed-side discourses, gentlemen, are still continued. They will occupy much of your attention here throughout the coming winter. The time may come when you will have reason to remember them with as much satisfaction, as do now those who are your seniors and your instructors.

In order more fully to benefit the students of this city, as well as for the advantage of the profession generally, an effort was made, about four years after the opening of the Hospital, to establish a Medical Library in connection with it. The funds derived from the sale of hospital tickets to the students were appropriated to this purpose. The library, from its commencement in 1796, has been supported almost exclusively in this way. At present it contains nearly six thousand volumes of the choicest and most costly works of medical literature, both ancient and modern; and it is continually increasing. To the student the privilege of using and consulting these works, in connection with his practical studies here, can never be too highly estimated. It may be well to know that there is not a hospital either in France, Great Britain, Ireland, and so far as I know, in any other part of Europe, that contains a library fit to be compared with ours.

Prior to 1811, I am not aware that any attempt had ever been made to introduce here a course of teaching, more complete than that of which I have already spoken. About this period Dr. Edward Miller, in association with Dr. Seaman, attempted to institute a system of clinical lecturing in the Hospital Theatre; Dr. Miller, with this view, commencing on Clinical Medicine, and Dr. Seaman, on Clinical Surgery. But the death of Dr. Miller, which occurred in 1812, arrested this commendable undertaking.

Several of the attendants here, in their connection with the colleges, have at different times since the first opening of the Hospital, enjoyed the nominal office of Clinical Professors. But their mode of instruction here has always been the same as that of their colleagues. The students have never been required to attend them, or indeed to attend to Hospital teaching at all. As a means, however, of inducing them to seek for practical instruction, the custom was introduced of granting to each hospital student at the end of the winter session, an engraved certificate signed by each of the Attending Physicians and Surgeons. This custom was followed up for many years; and tended, as much as any other circumstance, to increase the sale of hospital tickets.

These certificates were adorned with a copper-plate engraving of the Hospital Buildings. They may still be occasionally seen, framed and suspended in the office of city, as well as country practitioners, exhibiting the names of Hammersley, Hosack, Mitchell, Post, Cock, Mott, Stevens, and others, as vouchers for the practical acquirements of the possessor. The custom of calling for these testimonials has, within a few years past, been entirely neglected. Why, I know not. The students are as much entitled to them now, as they ever were. And the opportunities which they now enjoy here, should give them a far better right to make use of them.

From 1812, up to the period at which I first became acquainted with this Institution, I am not aware of any further attempt to extend the sphere of teaching here. In the year 1827, I remember to have heard a series of three lectures in the Theatre, from the late Dr. Watts, on the subject of Hemorrhages. With the exception of these, I can refer to no others delivered here, until Dr. Stevens, about the year 1837 or '38, began to give an occasional practical discourse. These lectures he pursued, at intervals, up to the period of his resignation in 1839. They were received with marked satisfaction. Most of those who heard them can now look back to his discourses "On the Treatment of Patients immediately after the Receipt of Severe Injuries," "On Lithotomy," "On Ulcers," "On Hemorrhoidal Affections," "On Venereal Diseases," "On the Extirpation of Tumors," and a few other topics, as the harbingers of a brighter era.

After what has now been stated, it may ill become me to speak of more recent improvements. I may, however, be permitted to say, that soon after my appointment here, I had the honor of submitting to my colleagues a series of propositions, recommending, among other things, the formation of a pathological cabinet; the erection of a convenient building for post-mortem examinations, to which students might have access; and a regular mode of registry for all the hospital cases. These propositions were warmly accepted and seconded by my colleagues. They were, in due time, submitted to the Board of Governors; and before the end of the year they were successfully carried into effect.

In the spring of 1840, that following my appointment, I commenced a special course of Lectures on Surgical Pathology, illustrating most of them by hospital cases. These were soon followed by other special courses from my colleagues; and by a more thorough system of Clinical Lecturing in the Theatre. These distinct courses have since resulted in our associated and extensive Spring Lectures; which are given every season, immediately after the close of the college sessions.

To sum up, then, we have only to repeat the bill of fare with which we first set out. Until recently, the privileges of the student in attendance here, were, 1st, the opportunity of visiting the wards, of examining the cases for themselves, and of listening to the practical remarks of the attending Physician and Surgeon. 2d, the use of the library. 3d, the opportunity of witnessing surgical operations in the Theatre. In connection with these, they have now the privilege of consulting our Hospital case books. They have access to our Pathological Cabinet, a collection of the greatest value to the student. They have, in the next place, convenient rooms, well supplied with all the appurtenances proper for post-mortem examinations. The hour for making which, throughout the year, being regularly at 11 o'clock, allows to all who are so disposed, the opportunity of witnessing them. Furthermore, they have now, full expositions of all severe or difficult surgical operations. They have, every year, Clinical Lectures, in course, on Medicine and Surgery. And lastly, they have access to our Associated Lectures on Several of the important Specialties of Medicine and Surgery; among which may be specified, Topographical and Morbid Anatomy, Dressing and Bandaging, Ophthalmic and Aural Surgery, Surgical Pathology, Thoracic Affections, Diseases of the Nervous System, with practical teaching in Chemical Analysis. And for these privileges, which in any of the schools of Great Britain would cost them more than two hundred dollars a year, privileges which they could not enjoy in any single hospital in Paris,—and which neither love nor money could purchase for them elsewhere in this country, they are called upon to pay—I almost blush to name it, the amount of eight dollars annually!

Gentlemen, the means of practical instruction at present at our disposal are all brought into requisition. Our system is nearly complete. By extending our Spring Lectures; by employing our Apothecary's Department for teaching the materia medica and pharmacy, and our open grounds for a botanic garden; by distributing external patients among the students, and establishing dissecting rooms somewhere in the neighborhood; a course of education might be made more thorough here, than in any other institution in America. These remaining resources may, perhaps, some day be brought within our reach. In the meantime, gentlemen, you cannot do better than turn what is already provided for you, to someuseful account.

You may, in other countries, find larger hospitals; but none presenting a greater variety of acute and important diseases. You may find in other hospitals, abler teachers; but none so willing as we have been to give you our time and services for nothing. You may find, in some few other institutions, greater opportunities for autopsic examinations;

you may find, in the cabinets of foreign societies, more valuable pathological collections; you may, in other cities, even find larger libraries than ours. But look for all of these together in any other hospital either at home or abroad,—and you will look for them in vain. I say it without fear of contradiction, you will not find a single hospital to compare with this,—not one that contains within itself so many advantages for both theoretical and practical study as this New York Hospital.

A word or two more in conclusion.—During the coming winter, it will be well for every medical student here, but more particularly for such as are not prepared to remain in town after the close of the college session, to visit the hospital daily. Let nothing prevent you from attending at the hour set apart for the purpose.

Come not merely with your ears open, as students often do. Come not to gaze about the wards with idle curiosity. But rather, come like philosophers, with all your faculties awake, for examining, comparing, judging, and thinking for yourselves; and working, too, for yourselves, at every opportunity.

Pick out your own cases, and study these, and note these for yourselves. Do not attempt to listen to all that is said with the view of remembering it:—but listen well to what is said of the cases on your own list, and see if it be true. Attempt not too much.

Do not fall into the puerile fondness of hunting after strange sights, rare diseases, and great cases. The dressing of an ulcer, the setting of a bone, the treatment of a pleurisy, pneumonia, or fever,—these, and such as these, should be your study here. Striking cases you may look at; but the business that should fix your attention, is that which best prepares you for the daily business of the profession.

Finally, avoid that morbid appetite for surgical operations, so long magnified and so much over-rated. Surgery is a good thing, a useful, an excellent thing in its way; but too much of it is a great evil. And the sooner you find out this for yourselves, the better for your patients.

Art. II.—*A Case of Empyema, in which the operation for Paracentesis Thoracis failed from a cause not generally noticed.* By John A. Swett, M. D., Physician to the New York Hospital.

It has happened to me to assist at, or to perform the operation for empyema seven times during the last eight years, and no difficulty has occurred to the easy and successful evacuation of the purulent matter until the present year. During this time, two cases have occurred to me in which no discharge of matter followed the operation, notwithstanding undoubted evidences of its existence were apparent to several intelligent physicians, as well as to myself. Both these cases terminated fatally. In one, the cause of failure appeared clear on post mortem examination; in the second case no post mortem examination was made, so that the cause of failure is at best conjectural.

A single gentleman aged about thirty-two years, with a strong family predisposition to tubercles, was attacked with hemoptysis about ten years ago, while pursuing his medical studies in Philadelphia. He soon, however, recovered his usual health, which was rather delicate, principally from the existence of dyspeptic symptoms, and continued to pursue his usual business, which was that of a clerk, until last autumn. He was then attacked by severe pain in the right side of the chest, cough, dyspnœa, and by other symptoms which were probably dependent upon an acute pleurisy. He, however, recovered his usual health, the cough, dyspnœa and pain in the side entirely leaving him, so that he could walk from his residence to his place of business, the distance of a mile and a half, during the coldest weather of the past winter, and with the greatest ease and comfort. Early in February, however, of the present year, the pain in the right side gradually returned with the cough and dyspnœa, and he complained of feeling feeble and unwell, although he continued to pursue his usual avocations at this time—he was attended by a physician of this city, who supposed that he was suffering from an affection of the liver. About the first of March, he was examined for the first time, by Dr. McClellan of Brooklyn, who found him much enfeebled, with a weak, rapid pulse, and with the physical signs of extensive effusion into the cavity of the right pleura. He was treated by a mild mercurial course, the gums being kept slightly sore for ten days, and by counter-irritation to the chest. Afterwards, tonic remedies were used, but they were soon abandoned, as they did not appear to agree with the digestive organs. In time, hectic symptoms appeared, while the gradual failure of the vital powers continued, as also the physical signs of the pleuritic effusion.

I examined the patient, for the first time, on the 25th of April last, nearly two months after his attack. He was then sitting up, his face pale and œdematous, somewhat emaciated, and with considerable loss of strength. His pulse was 116, and feeble—his respiration oppressed, with the ability to lie on either side, but with a preference for the affected side or the back. His cough was moderate, with a trifling transparent mucous expectoration. The appetite was indifferent and capricious, the stomach easily disturbed, the tongue red at the tip, and with enlarged papillæ—a slight tendency to diarrhœa existed.

On examining the chest, the right side evidently moved less freely than the left during respiration; it was universally dilated; it was œdematous, and outside the nipple there was a circumscribed bulging with tenderness on pressure, but without fluctuation. This side of the chest was also universally very dull on percussion. Anteriorly and posteriorly, over the upper third of the lung, a distinct bronchial respiration could be heard, also along the spine quite to the base of the lung—over the remaining portions of this lung, below the third rib in front, and laterally and posteriorly from the same level, all respirating sounds were entirely absent. Egophony existed over the middle portion of the side. The heart was considerably displaced to the left side, and the liver descended below the false ribs. Over the left side of the chest the percussion was clear, and the respiration pure and natural.

The condition of the patient, as well as the previous history of the case, convinced me, as it had already convinced Dr. McClellan, that a copious effusion of pus existed in the right pleural cavity. I hesitated as to the propriety of performing the operation for empyema, notwithstanding the favorable opinion of Dr. McClellan, because the strong family predisposition to tubercles, the occurrence of hemoptysis several years before; and finally the existence of a bronchial respiration at the summit of the lung, induced me strongly to suspect that the lung was already the seat of a tuberculous deposit, and therefore, that an operation could be productive of but little benefit. The patient being disposed to leave the decision of the question entirely to us, Dr. Hoffman, of this city, was called in consultation; after a careful examination of the case, he was of the opinion that the operation for empyema should be performed. It was immediately performed (May 3d) by Dr. McClellan, in the usual place, laterally between the fifth and sixth ribs. The integuments were first divided by a scalpel; and a flattened canula, with a lancet shaped trochar, made for the purpose of penetrating the chest, was introduced. To our great surprise, no matter followed the removal of the trochar. A probe introduced to a considerable depth, much beyond the depth of the pleura costalis, came in contact with a solid substance, but still no pus flowed. We had observed, during the operation, after the division of the superficial parts, and which the existence of œdema prevented us from ascertaining before, that the intercostal space was not at all widened—that fluctuation was entirely wanting; and formed the opinion that an old adhesion had probably united the lung to the ribs at the place where the trochar was introduced.

The wound, kept from closing for some time, by the introduction of lint, with the hope that pus might at length find its way into it—at length healed. The patient, although well supported by proper means, gradually failed. Two new symptoms were noticed—the pulse became more feeble at the right than at the left wrist, and the patient complained of a severe oppressive dragging pain above the spine of the right scapula on rising, which was relieved at once by the recumbent position. The œdema of the chest also increased very much, and produced great deformity, by forming two large tumors, one anteriorly about the superior portion of the chest, the second, posteriorly about the base of the chest, but without fluctuation or other evidence of the pointing of matter. The feet were also noticed to be slightly œdematous.

The failure of the operation had, of course, thrown a good deal of doubt on the diagnosis of the case. The patient, therefore, proposed that Dr. Beales, of this city, should be called in consultation. After examining the case, Dr. Beales expressed the opinion that it was probably a malignant or cancerous disease of the chest. The same idea had already entered my mind, especially from the recollection of the cases detailed by Dr. Stokes of Dublin, as well as of one I had myself attended, and which is published in the number of this Journal for July, 1845. In this case, the symptoms of pleuritic effusion appeared so marked, that tapping the chest had been seriously considered, while the true nature of the case, a large cancerous tumor, was only revealed by post mortem examination.

With these views of the case, it was of course thought advisable to do nothing beyond making the patient as comfortable as possible. On the 4th day after the consultation, June 16th, pointing occurred at the very spot where the incision had been made; a spontaneous opening took place, and a large quantity of purulent matter was discharged. The patient was somewhat relieved; the breathing became less oppressed, and the distressing dragging sensation at the top of the right shoulder, entirely disappeared. But the patient gradually sank, and died on the 23d of July.

Post mortem examination, 12 *hours after death.*—The right side of the chest was still somewhat dilated; the œdema had entirely disappeared, except at the lower extremities. The external opening into the right pleura continued. This cavity contained a quantity of fetid gas, and about one quart of pus healthy in appearance, but of a very nauseous odor. The whole pleura was covered by a thick false membrane of variable firmness, and detached without difficulty from the parts beneath. The pleura itself was somewhat thickened and opake. The lung adhered to the diaphragm by old adhesions; also at the summit of the chest, anteriorly as low as the third rib, and posteriorly to the same extent. Laterally, where the operation had been attempted, *there were no adhesions uniting the lung to the pleura costalis*, but only a false membrane, somewhat friable in its texture, and adhering with moderate firmness to the pleura costalis. The right lung considerably compressed, exhibited no evidence of disease, except two small aborted tubercles at the summit. The left pleural cavity was healthy, except from the existence of some old adhesions at the summit. The left lung contained, at its summit, some old cutaceous tubercles and a cicatrix. Numerous minute, semi-transparent miliary tubercles, apparently of very recent formation, were scattered throughout this lung. The heart was natural. A few tubercles were also noticed under the peritoneum. The liver was closely united to the diaphragm by old adhesions; its structure appeared to be natural.

The cause of failure in evacuating the pus, in the above case, was not a mistake in the diagnosis of the disease, but unquestionably, I think, a *false membrane lining the pleura costalis, and so loosely attached to it, as to be pushed before the point of the instrument*, so that the cavity containing the pus was not entered at all. I was not aware that any writer on the diseases of the heart had alluded to this as a cause of failure of the operation, until Dr. Hoffman directed my attention to Dr. Watson of London, who, in his lectures recently published, states on the authority of Dr. Davies, that the operator should be careful to use a sharp instrument, otherwise the accident of pushing the false membrane before its point might occur. But no cases are referred to in which this accident actually occurred, neither is it stated that it has ever happened. That the dullness of the point of the instrument may be an occasional cause of this accident, is, perhaps, partially true in the above case; for in another case which occurred in the practice of Dr. Hyslop, and whom I assisted in consultation, the same instrument was used, and for the moment with the same ill success, notwithstanding that distinct fluctuation existed at the point where the trochar was introduced. The delay of the pus was, however, only momentary; the introduction of a probe, probably by rupturing the false membrane, gave it a free passage.

But a dull instrument is not, as I think, the sole cause of the accident. That the false membranes forming the true sac in empyema are frequently thick and resisting, must have been observed by all in the habit of examining those who die of empyema; but the looseness with which these membranes are sometimes attached to the pleura would not, perhaps, be as readily noticed, unless in connection with the accident we are now considering. In a case that has occurred to me during the present year, the false membranes were not only three or four lines in thickness, but dense and elastic like leather, and yet so loosely attached to the pleura that, by a slight pressure of the fore-finger, they could be readily separated in the form of a complete sac.

Art. III.—*Case of a Tumor at the Angle of the Jaw, with practical remarks.* By J. P. Batchelder, M.D.

In November, 1828, Mr. Cleveland, about twenty-eight years of age, consulted me concerning a tumor in his neck, which had caused much anxiety. He was stout, athletic, and at first sight apparently healthy; but on close inspection, it was obvious that a malignant disease was beginning to exert an influence upon his constitution. Complexion, sandy; hair, reddish-yellow; skin, rather fair: temperament, sanguine; circumstances which had led to the belief that his malady was of a strumous character; but the skin, although fair, was not the thin, delicate skin of scrofula. There was also too much volume, strength and firmness of muscle, for that complaint; and besides, he had had in his youth none of the affections indicative of it at that period of life. His business, lumbering and boating on the Erie Canal, had subjected him to all the hardships, irregularities, and probably many of the dissipations incident to that mode of living. About ten or twelve months prior to his calling on me, he began to feel uneasiness about the ear and angle of the jaw, which was imputed to a cold, and therefore not regarded; but continuing and becoming more troublesome, the part was examined, and some tumefaction and hardness, not very definite, were discovered. A physician was at length applied to, who advised the common remedies, and encouraged him to hope that the difficulty would probably go off on the return of warm weather. As the tumor steadily enlarged, in spite of all the remedies and applications which had been recommended and prescribed by the medical gentlemen whom he had consulted, a surgical operation was suggested as the only means by which it could be removed. By advisement he called on me for an opinion as to the practicability of such a measure, and also for its performance if deemed advisable. On examination I found a tumor about as large as a turkey's egg, which commenced high up and deep in the space between the ramus of the jaw and mastoid process, and continued to increase until it occupied the whole region, and extended down the side of the neck nearly two and a half or three inches below the angle: being about five inches in length. The upper portion of the tumor appeared to be fast; the lower could indeed be moved transversely, but not longitudinally; if the muscles were put on the stretch, the whole seemed to be fixed, or rather rendered much less movable. The patient did not recollect whether at any time it could as a whole be moved. With the point of the finger passed into the mouth by the side of the tongue and beyond the palate, the tumor could be distinctly felt bulging into the fauces;—also impressions made upon it from without; but no clearly ascertained movement could be perceived. By pressing the finger as firmly upon the intervening tissues as the patient could bear, and moving its point about, we were pleased to find that it carried them with it along the inner surface of the tumor, from which it was inferred that they did not adhere to it with much firmness. By this experiment, the thickness of parts between the tumor and fauces was pretty well ascertained, and also that the point of the styloid process protruded further into the throat on this, than on the opposite side, owing, doubtless, to the pressure of the tumor.* The patient thinks he does not hear well with that ear, and that the side of the mouth correspondent with the tumor, is less moist than the other;—looking into that cavity, no saliva is seen issuing from the stenonian duct when the jaw is moved; and besides, the pulpy mass exterior to the tumor, seems to move rather freely over its surface; circumstances thought to corroborate the opinion that the parotid had been almost, if not quite, absorbed, and that the tumor had taken its place.

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* It was recollected that this sometimes happened in cases where there was no disease.

Although considerably conversant with tumors in that region, and somewhat practised in operations for their removal, this appeared to be the most formidable that had been presented to me with an appeal for an operation. I therefore desired time to study the case, and particularly to review the anatomy of the parts, and consider fully the relations which obtained between them and the tumor, advising the patient in the meantime, to live abstemiously, mainly on a vegetable diet, abstaining wholly from stimulating drinks, and keep his bowels open.*

Of the Nature of the Tumor.

Is it, as has been supposed, a strumous affection, or simply a tumefaction, chronic enlargement, or hypertrophy of the lymphatic glands in that region? Is it scirrhous, or rather, malignant? We shall not trouble the reader with a detail of the reasons, or reasonings, which were entertained in order to show what it was not, but proceed to mention briefly the principal considerations which led to the conclusion that it was malignant. 1. Its rapid growth. Notwithstanding the length of time that had elapsed since its commencement, its magnitude was deemed sufficient evidence of rapidity of growth. 2. Its fixedness. 3. Stony or woody hardness. 4. Insensibility on handling. 5. Occasional shooting, darting, lancinating pains.† 6. Frequency of pulse. 7. Appearance of countenance, which is concomitant with and indeed symptomatic of malignant disease, though apparently local. Conclusion: The disease is a scirrhous enlargement of a lymphatic ganglion, normally situated in the parotid gland, about equidistant from the angle of the jaw and its condyle;—its ramus and the mastoid process, which had by its enlargement and consequent pressure, caused the parotid itself, as has been suggested, to be nearly, if not entirely, absorbed.

Can it be removed by an Operation?

Having in a former communication laid it down as an axiom, that "every surgical operation should be based on the anatomy of the region which is the field of operative procedure," I feel myself bound

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* I am not much in the habit of preparing patients, as it is termed, for operations. Unless there is some disease other than that for which the operation is to be performed, the performance should, in my opinion, promptly succeed the decision to operate. On no occasion have I regretted following this rule.

† These sensations, or pains, are peculiar to the serous membranes. When complained of by patients, the practitioner should always suspect one of two things, viz: either that the cause is in a serous membrane, or in a part, as a gland for instance, which circulates red blood, but which is undergoing a change by which that is excluded, as in scirrhus and cancer. It should be also recollected that serous membranes, in their normal condition, exclude red blood, and are, therefore, insensible, like bone, cartilage, or any other structure which admits colorless fluids only. Each structure has a feeling peculiar to itself; an important consideration for the medical man.

(which is my apology), to detail rather minutely, the anatomical relations and connections upon which the operation about to be described was predicated and planned. The inferior extremity of the tumor inclines forward and even presses upon the larynx, consequently is exterior to the cornua of the os hyoides and thyroid cartilage, which lie between it and the facial, lingual, and superior thyroid arteries and the hypoglossal nerve; farther down it is separated from the primitive carotid, par-vagum and internal jugular vein by the deep cervical fascia and sheath which envelopes them. When the chin approaches the sternum this part of the tumor becomes more prominent laterally; and if the mouth be opened while the head is in that position, the lateral prominence is increased, and forced back under the mastoid muscle, from which it was inferred, as the artery did not accompany this last movement, that there was no very intimate connection between it and the tumor. In deglutition, the tumor became likewise more prominent laterally, from the action of the digastric and stylo-hyoid muscles, by which the cornu of the os hyoides was made to ascend within the tumor, therefore it was not connected with the external carotid from the bifurcation, or with those muscles up to a level with their highest range of action. Thus far matters seemed to be favorable to an operation; but the state of parts above the muscles just named, was much more difficult to make out. The tumor fills the whole of that region, and consequently has a most intimate relation to and perhaps connection with its boundaries and contents, from which obstacles, formidable, if not insuperable, may arise. The solid parts which constitute the metes and bounds, the surgical landmarks of that region (i.e. above the posterior belly of the digastricus and stylo-hyoideus), are anteriorly, the angle, ramus, cervix condyle and zygoma;—posteriorly, mastoid process, transverse process of the atlas and the meatus auditorius externus:—internally, the styloid processes of the petrosum and sphenoides, and the "long rough ridge called processus vaginalis, just behind which and partially surrounded by it, is the styloid process" which, in most instances, extends from the root of the mastoid to a point opposite the styloid process of the os sphenoides.* The spaces between these solid structures are occupied by fasciæ, that complete the confines of this region which we denominate the parotid cavity. Externally, we have the fascia superficialis, and next, the fascia which comes off from the masseter muscle, one layer of which passes inside, and the other outside the parotid gland, around the margin of which they unite with one another and become firmly attached to the surrounding solids, viz: the angle, ramus and condyle of the jaw; the zygoma, glenoid cavity, meatus, and mastoid process.†

From the angle of the jaw a condensed portion of fascia passes upward, inward, and slightly backward to the styloid process, to which it firmly adheres. This constitutes what anatomists call the stylo-maxillary ligament;—also from the angle and ramus, a sheet of fascia (a part and parcel or prolongation of the last described) goes off, which covers the pterygoid muscles, and excludes them from the parotid cavity. It adheres to the external pterygoid process, and is perforated by the internal maxillary artery as it escapes from said cavity. The fold of fascia which forms the septum between the parotid and submaxillary gland extends from the angle of the jaw downward and backward to the anterior margin of the mastoid muscle to which it adheres; it then takes a turn upward and backward, covering the os hyoides, digastric and stylo-hyoid muscles onward to the styloid process and "vertical crest," from the anterior extremity of which it is extended to the styloid process of the os sphenoides. It adheres to the "vertical crest," and also to the other osseous structures above named. From these points of attachment it stretches further upward along the meatus auditorius; but seems to be quite thin and in some subjects entirely wanting in the neighborhood of the cervix and condyle, not being there needed for the security of any important part. The fascial arrangement just described forms not only the partition between the submaxillary and parotid; but the inner boundary of the parotid cavity, and consequently lies between the tumor and the internal carotid, internal jugular vein, nerves and muscles, and furnishes a barrier beyond which the surgeon's knife must not pass.* Not so with the external carotid, which passing within the digastricus and stylo-hyoideus, perforates this fascia just above them, and gets fairly into the cavity and wends its way up between the fascia and tumor about three quarters of an inch, where, in the normal state of the parts, it enters the substance of the parotid; it is this vessel with its branches in such fearful juxtaposition to the tumor, which gives us the most concern. Just at the above mentioned point where the artery enters the parotid gland, it divides into the internal maxillary and the temporal; the former goes off forward at a right angle; the latter passes up between the meatus and condyle, and escapes from the parotid cavity over the zygoma. If the conclusion that it is an enlargement of one of the lymphatic glands imbedded in the substance of the parotid be correct, what are its precise relations to the external carotid;—its branches;—and the portio dura? These glands† each enclosed in a capsule of its own, are situated near the place where the artery enters the substance of the parotid, and also where it divides into the internal maxillary and temporal. When one enlarges it forms for itself a sort of cyst of condensed cellular substance; compresses the parotid, and causes its absorption, and finally comes by degrees to take its place without assuming exactly the same relations to the arteries and nerves as obtained between them and the parotid in their normal state; still relations exist between them and the enlarged gland, which it is very important to ascertain and settle as far as practicable. As the lymphatics and lymphatic glands are in general more closely associated with the veins than with the arteries, and more especially so in the neck, it was inferred that the vein, which is normally anterior to the artery, lay between it and the tumor; that the latter, enveloped in and surrounded by a cyst formed of condensed cellular substance, lay anterior to both artery and vein, which would be found on its proximal or mesial side. This view is corroborated by the fact that the finger introduced deep into the throat could feel not only the tumor but the styloid process much more prominent and farther back than on the opposite side.

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* This "rough ridge" of Horner, and "vertical crest" of Cruveilhier, the writer has been in the habit of thinking of much practical importance. It forms the dividing line between the parotid cavity, and the internal carotid, internal jugular and nerves which accompany those great blood-vessels; all being posterior to it.

† It should be remembered that the parotid has no capsule of its own, and that, in the present case, owing to the absorption of that gland, these lamina, united by cellular substance, form a covering to the tumor.

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* This fascia passes from the root of the mastoid inward and forward along the "vertical crest" to the styloid process, and still further along said crest separating the parotid cavity from the stylo-mastoid foramen, jugular fascia and foramen caroticum, at which point it sends off a process forward to the styloid process of the os sphenoides, which separates the glenoid cavity from the eustachian tube, thence onward to the external plate of the pterygoid process, thence to the ramus and neck of the condyloid process of the inferior maxillary bone, covering the pterygoid muscles and excluding them from the cavity. The portio dura penetrates this fascia between the roots of the mastoid and styloid processes; the external carotid pierces it, as has been stated, from beneath the stylo-hyoid and digastric muscles, just below and exterior to the styloid process.

Upon this arrangement of the fascia and its attachment to the styloid process and "vertical crest" of the petrous bone, and the consequent security which it affords to the vessels and nerves above mentioned, the writer based and promulgated in private and public lectures the opinion of the practicability of removing the parotid gland, long before it had been, to his knowledge, accomplished by an actual performance of the operation.

† In dissection we generally see but one, but there are more.

In Conclusion.

The circulation of the vessels in that region not being affected; nor the functions of parts supplied by the portio dura and branches of the trigemini disturbed in any appreciable degree, the opinion entertained was, that neither the vessels nor nerves were involved in or compressed by the tumor, or very closely connected with it. If we avoid the principal arteries, shall we have hemorrhage from another source? The apparent circumscription and hardness of the tumor, taken in connection with the fact that the veins on the surface are but slightly varicose,* favors the idea that neither its own circulation, nor that in and with contiguous parts, is very active; consequently that the connection between it and them is slight;† therefore little or no hemorrhage from small vessels is to be apprehended, provided we keep close to the tumor, or as much as possible between its capsule and the cyst already mentioned.

Operation.

As the operation was almost exclusively based on the anatomy of the parts, the surgeon, who is an anatomist, will be able to anticipate nearly every step of its performance, therefore, the details of the plan, with the exception of the following points, will be omitted.

1. Injure the parotid gland as little as possible. 2. Dissect from below, upwards, and endeavor to gain the point of the styloid process near which the external carotid generally passes, and where it may be compressed or tied. As the proposition for tying the external carotid between the bifurcation and the digastricus is not, for reasons deemed conclusive, entertained, measures for securing it after emerging

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* Varicose and tortuous veins in the vicinity of indurated structures, as scirrhus, cancer, &c., are a sure sign of obstructed circulation within them, and also in the parts immediately surrounding them;—in structures softened by disease, it is an indication equally sure that the circulation is active.

† The fixedness of the upper portion of the tumor was regarded as arising from close contiguity of solid parts, rather than from strong adhesions to surrounding tissues. The freedom with which the lower jaw moved, although considerably restrained, seemed, however, to militate against this view.

from behind that and the stylo-hyoid will be taken. 3. Be prepared to tie the common carotid. 4. Regard the direction of the external carotid, above the styloid process. 5. Find the transverse process of the atlas. 6. Preserve the trunk of the portio dura from lesion. 7. Tie, if necessary, and before dividing, if practicable, the internal maxillary artery;—also, the temporal. The patient being laid upon a table of convenient height, with the body inclined to the opposite side, and the chin slightly elevated, an incision was made through the integuments, which commenced over the zygoma, about half an inch in front of the condyle, and curving backward near the meatus and the mastoid process, extended down along the anterior margin of the mastoid muscle, to the side of the trachea, where it terminated an inch or more below the inferior extremity of the tumor.* A dissection an inch in length was made through the fascia to the surface (as was supposed) of the tumor on its posterior side, into which a director was passed in contact with that surface, down to the termination of the incision; a knife run along its groove divided the platisma myoides and all the aponeurotic coverings; pressure being made on the cardiac side to prevent the admission of air into the external jugular, which must be necessarily severed by this movement. The director was again introduced and carried upward, and the parts lying over the face of the tumor in that direction divided in the same manner as near the meatus as could be well done. To ascertain whether the surface of the tumor had been positively reached, the point of the finger was pressed upon it and moved in different directions, by which it was shown that a layer of membrane (part of the cyst probably) moved with it, thereby proving that the tumor had not been actually exposed. This intervening membrane was pinched up, opened, and similarly divided through its whole extent. By pulling the flap, made as described, upward and forward, the lower extremity and posterior side of the tumor, *now absolutely denuded*, were raised from their position, and the work of detaching commenced. The fingers and handle of the knife were employed in separating and pushing along and away from the surface, the cellular substance, occasionally touching it with the edge when accumulated so as to prevent further progress without such application. The portions above mentioned were thus detached to a level with the angle of the jaw, and posteriorly a little higher. The flap, consisting of integument, layers of fascia, platisma myoides, remnant of the parotid, and part of the cyst, was separated by a few sweeping strokes of the scalpel, with its edge in contact with the tumor, and dissected from it as far forward as the angle and ramus, the tumor being at the same time forced downward and backward. By means of a large strong hook its inferior extremity was further drawn out and back, and the process of detaching on this side continued inward, forward and upward, behind and within the angle,* and also the tumor, until the styloid process, and soon the external carotid could be felt passing over it at least three-eighths of an inch back of its point,† where we found, to our great satisfaction, that it could be compressed so as to stop the pulsation in its branches, and probably command the flow of blood through them; of the latter, however, we did not feel quite assured, as Mr. John Bell tells us that stopping the pulsation of an artery did not obstruct the flow of blood through it so as to prevent hemorrhage, which accords with the writer's experience when large arteries are concerned.‡ Being able, as was hoped, to command or control the external carotid, we proceeded to dissect cautiously along the mastoid muscle and process towards the meatus, in doing which the integument sustaining the lobe of the ear was raised and turned back, so that the line of separation went from the process to and past the meatus. In the vicinity of the transverse process of the atlas great care was taken to avoid the occipital and posterior auris and the other great bloodvessels and important nerves which lie on its mesial side, within half an inch of its extremity, not forgetting the trunk of the portio dura as the dissection advanced. As the tumor seemed to fill the whole space, and moreover to be firmly adherent, much difficulty was experienced in accomplishing this part of our task; but by keeping closely in contact with it, drawing and holding it as much forward as possible, and pushing the cellular substance away from it backward, with the handle of the knife, which was also moved along the surface (the edge being substituted, when the accumulation required), some progress was made. It was likewise attempted to force the handle of the knife upward, within and in contact with the inner surface of the tumor, and then carry it backward and around its posterior side; something was also gained in this way, yet less than was anticipated, owing to the circumstances just mentioned; but by acting alternately in this and in the other way; by pulling, pushing, cutting and tearing a little here and a little there, the tumor was somewhat loosened and detached, so as to enable us to pass the transverse process of the atlas and reach, nearly if not quite, the external carotid, the course of which is upward and backward, from where it emerges from behind the digastric and stylo-hyoid muscles. We could not, however, perceive its pulsation, and were therefore ignorant of its precise situation relative to parts which had been probably disturbed by the disease and operation.

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* The reason for curving the incision backward and extending it to the trachea so far below the tumor, were, 1, to inflict the smallest possible injury on the parotid gland, if any of it remained, in order, to prevent salivary fistulæ, which authors tell us are so apt to follow wounds of the parotid, a contingency which the writer has never witnessed, although he has had occasion in a number of instances to make deep and extensive incisions in that body in operations for the removal of tumors from that region; but in no case has the discharge of saliva continued so as materially to interrupt the healing of the wound, much less produce fistula. 2. To raise the tumor from its bed by means of the convex flap.[a] 3. To facilitate tying the common carotid, should that step be deemed necessary.

[a] Frequently when a tumor has been laid bare by an incision half round its base, it may be lifted from its bed with little dissection, and turned back with the flap and peeled off with the fingers. I think this idea was derived (in 1815), from seeing a patient from whom Prof. J. C. Warren, of Boston, had removed a tumor by a curvilinear incision, since which the writer has been in the constant habit of planning his operations for the extirpation of tumors upon the principle of a flap operation, in all cases suited to that method of operating.

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* The relative distance between the angle and styloid was considerable, owing to the fact that none of the molar teeth in either jaw had been extracted. Both teeth and jaws were amply developed.

† This artery almost always passes near the point of the styloid, but sometimes it varies, as in the present instance, in which this irregularity was remembered, and the caution predicated upon it exercised. In prosecuting this dissection the stylo-maxillary ligament was rather indiscreetly trenched upon (perhaps divided); but sometimes "our indiscretions serve us well," and so it proved in this case, as will be seen in the sequel.

‡ Since writing the above I have heard Dr. Mott, who is daily unfolding the vast robe of professional experience, express, in one of his lectures, an opinion adverse to that of Mr. Bell. I am aware that every observation of the Professor is entitled to great consideration; but if I do not mis-remember, I have seen, in one instance at least, and I believe two, the blood flow from the femoral artery in a stream which would have soon caused death, when all pulsation in the arteries below had been suspended by the pressure of the tourniquet. I also noticed, that in color, it resembled venous blood. A curious fact.

Returning to the angle; an attempt was made to extend the dissection further up, along the ramus and cervix, and separate the tumor from them and the pterygoid muscles, and also reach the internal maxillary artery; but with little success, owing to the want of room and fixedness of the tumor; yet something was gained, for it was rendered more compliant. By separating a little here and a little there, the tumor became still more yielding, which now induced us to turn our attention to the upper and posterior side, in the vicinity of the zygoma, condyle and meatus; and there at first the prospect was more flattering; but as we proceeded, care being taken not to wound the temporal artery as it emerged from within and above the tumor, the firm in-wedging and strong adhesions of the tumor seemed to furnish almost insuperable obstructions. We were by this time able to ascertain that the cause of difficulty was a protuberance from the upper part of the main body of the tumor, which lay between the neck of the condyle and external pterygoid process anteriorly, and the meatus posteriorly, and apparently filled the whole space where the deep cervical fascia is deficient, protruding inward very much more than seemed compatible with the safety of the patient, or comfort and convenience of the operator. The dissection at the posterior part of the tumor was resumed, but with indifferent success; the portion filling the space above mentioned, remained undetached and immovable, and no room for prosecuting the dissection. What shall we do? as Mr. John Bell did, apply a ligature and cut away what we can with safety, and leave the remainder to slough off? or tie the external carotid and tear away the whole?

As the condyloid process was apparently the principal obstacle in the way of getting at the portion which defied all efforts at dislodgment, an assistant placed the fingers of one hand upon the angle, and forced it forward, and depressed the chin with the other; the effect of which was to remove the angle and condyle half an inch forward out of the way; and it is doubtful if that amount of space was ever more acceptable, or more highly appreciated than on the present occasion. How much of that result was attributable to the partial or entire division of the stylo-maxillary ligament, which also loosened the styloid process and facilitated the introduction of the finger, &c., I will not pretend to say.* The tumor was forcibly drawn outward, while the cellular substance and connecting medium were sedulously pushed with the handle of the knife, in all directions, from the protuberance—the edge being not unfrequently applied. In this way the operation was prosecuted until the tip of the finger could be forced in behind the morbid part from below, and the handle of the knife from above, by which, and with other helps, it was wrenched out of its bed, and finally separated from the body by a few touches of the scalpel. On examining the scirrhous mass, we were gratified to find that the whole tumor had been removed. During and subsequent to the operation, some eight or ten small vessels were tied. The loss of blood was less than had been anticipated. The artery that bled most freely was probably the transversalis faciei, which was small, as had been predicted on account of the large size of the facial.* The wound being cleansed, the solid textures which we have denominated "the metes, bounds, and surgical landmarks of the cavity," were made out; also the external and internal carotids; the occipital and temporal could be traced. The internal maxillary was not found, nor was it much looked for, inasmuch as it did not bleed. Every bleeding and pulsating point was sharply scrutinised and secured by ligature, if leakage was apprehended; the flap adjusted and confined in its place by sutures, straps, compresses, &c., and the patient laid in bed, with the head elevated, and the cold water dressing ordered to be applied in the course of several hours. From the paralysis of certain muscles of the face it was obvious that branches of the portio dura and trigemini had been divided. The palsy was less than might have been expected from the extent and character of the operation. That the trunk of the portio dura had not been injured, was shown by the fact that few parts supplied by that nerve were palsied. The operation, which was very painful and lasted more than an hour, was borne with great fortitude.

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* Should I again be similarly circumstanced, I would run a probe-pointed bistoury down to the angle, and there in close contact with the bone, divide the stylo-maxillary ligament.

The wound, except about an inch at its lower extremity into which a pledget of lint had been inserted,† and at the ligatures, united by the first intention. The pledget and also most of the ligatures came away at the first dressing; the whole speedily healed with apparent soundness, and the patient soon left rejoicing in the supposed cure. Painful as it may be, the reverse of this picture must be exhibited. In about three months a thickening, soft and quaggy, was perceived in that region, which continued to increase until ulceration of a horrible character ensued:—Profuse discharge of ill-conditioned matter, with frequent hemorrhages, exhausted and destroyed the unfortunate man.

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* I believe it always holds true that the transversalis faciei is small when the facial is large, and vice versâ, when the latter is small the former is large.

† After amputations and other operations, I generally resort to that expedient, to prevent union by the first intention in the most depending part of the wound. The retention of serum, blood, or even pus, which may have been effused or secreted in portions of the cavity where union by the first intention may not have taken place, is thus obviated. By omitting this precaution, I have known extensive abscesses form in a stump, and after other operations, which not only delayed the cure, but greatly enhanced the suffering and danger of the patient. The application of the water, by keeping the dressings moist, facilitates the escape of fluids from within, in addition to other advantages which result from its use. To give time for the plasters to become well set, its application should be deferred for some two or three hours.

P. S. I have known another case very like the one just reported, but much less formidable at the time of the operation, which was as quickly followed by a similar result. In both, the primary tumors were scirrhous;—the subsequent, encephaloid.

Drs. Pomeroy, Burge, Main, and Crossman, with a number of medical students, were present and assisted at the operation.

Art. IV.—*The Psychological Zoology of Man.* By Alonzo Calkins M.D., of New York.

Suppose the myriad intergradations of animated being, from the radiated asterias up to the most complex of the vertebrate orders, to be suddenly unfolded to the eye of the zoologist in one grand panoramic array, the inquiry would arise, are these forms the products of superaddition upon a primary germ, or the creatures of independent evolution; incrementary developements only, or specific and intransitive individualities ?

For the solution of this question recourse has been had again and again to comparative anatomy, but unsatisfactorily. Phrenology, too, has been invoked to interpose a decision. But phrenology no more than physiology has succeeded in getting behind the broad fact, that the encephalon is multipartite in function, and that while the automatic excitabilities seem to reside in the spinal cord and the cerebellum, to the brain proper is appropriated the function of thought and reason.

The chimerical fantasies of Darwin and Lamarck are fain to discern the archetype of man in the mollusc. This, by a series of metamorphosic transmigrations through chiliads upon chiliads of years, is at last transformed into the *homo caudatus*, or troglodyte. Monboddo elevates the series yet higher to its culminating point, by the simple conversion of the longtail into the *homo curtatus*, or *bobtail*. Speculations so recondite, yet at once so luculent, might suffice to stop the mouths of gainsayers, but for the stubborn fact that monkeys, in their irreverence for dreamy philosophy, still cleave to their tails, or rather their tails still cleave to them. " *Curtæ nescio quid semper abest rei*"—curtailed monkeys are not men.

The author of the " Vestiges," also, a champion arrayed in the well-furnished panoply of geological lore, heralds forth the favorite hypothesis of the materialist school, the doctrine of gradationary development out of a solitary archæus. The scheme is fortified by presumptive instances, as recognized in chemical, geological, botanical, and even ethnological analogies. Now a test-case must be palpable, unequivocal, pertinent. Does the oak ever yield other than an acorn, does the acorn germinate into something else than an oak ? When has the sheep degenerated into the goat, or the goat been transformed into the sheep ? Form may become more symmetrical so that the lineaments shall better quadrate with a beau ideal, and the blending of light and shade may grow more conformable to the picturesque, but the configuration and the conformation of the original members remain constant under all specific mutations. The argument, specious and elaborate though it be, is overset at the start by the very notable, and what may be termed crucial fact, that the hybrid productions resulting from contubernation between congenerous families, invariably die out, through infirmity or else abortive action of the fecundative energy, in the first generation.

The appeal to physiology and physical analogy is thus seen to be sustained by no material facts bearing upon the precise issue ; let us look into the merits of the psychological argument.

Now the understanding takes cognizance of two classes of ideas only,—its cogitative perceptions of material things, and the secondary conceptions or reflex thoughts in correlation with such perceptions. " Nihil est in intellectu quod non prius fuerit in sensu." Imagination never sallies forth on a tour of exploration, having first cut loose from the senses its pioneers. Dryads and syrens, centaurs and mermaids, inconcinnate or amorphous as they may appear, all have their archetypical elements in the ideas of sensation. Intellection then can be regarded in no other view than as homogeneous in essence and homologous under exercise. To this faculty of intellection in the concrete we apply the name *soul*, of which *mind* is but alter et idem, the abstract exponent.

Such exposition seems to accord to the mammalia as well as to man a certain duality of character. In anticipation of such inference, some metaphysicians would fain invest man with a tripartite constitution, by the intervention of a *tertium quid*, a something denominated *spirit*. The distinction is without a difference.

What now is reason, what is instinct, and by what criteria are they contradistinguished? Is the diversity a distinction *in modo*, or *in re*—a diversity in degree only, or furthermore in kind? Is reason a primordial and fundamental characteristic, or only a sequential and progressionary evolution of instinct?

Reason abstractly, or the faculty of ratiocination, is the process of educing a resultant idea from the catenation of two or more simple ideas in some of their relations and under variable conditions. Judgment, which involves sensation, memory, abstraction and comparison, is reason in its elemental form.

Instinct is native reason, but defined by and limited to a specific range, the physical wants of the animal. Instinct is mature at birth and antecedent to experience; reason, a seminal point in its origin, expands from birth and matures upon experience. Instinct—*spiritus intus*, is automatic and infallible; reason, calculative and deliberative, if fluctuative at first grows stable with time. The former, like the æsthetic faculties, is perfect in its nascent state; the latter, like the locomotive enginery, tremulous and vagarious at first, gains strength and steadiness in progress. The one is the axiomatic and postulative, the other the problematic and deductive. Instinct further is restricted to the domain of sensation; reason, in obedience to volition, transcends the bounds of sense to penetrate the subtle and spiritual. They stand, moreover, by measurable degrees in inverse ratio and in antagonism to each other, the lines of instinct fading and contracting as those of reason deepen or diverge.

As exemplifications of pure instinct may be adduced, the loomwork of the spider, the cocoonery fabric of the silkworm, the nidification of birds, the architecture of quadrupeds and other genera. The caterpillar turns again towards the tree from which it has just been shaken; the cat, transported in a blind sack, traces its path home again; the kalmia, eschewed as a poison by the sheep, the goat crops with avidity; the razor-bill poises its egg on a spinous ridge of rock; the woodpecker retraces its migrations as returning vernal zephyrs invite to amorous dalliance; the duckling, just liberated from the shell rushes into the slimy pool to the consternation of its foster-parent the hen. The eagle pierces with his talons, the ram butts with his horns, the horse strikes with his heels, the elephant gores with his tusks.

In mixed or modified instinct, reason looks out in various degrees of illuminating power, here in crepuscular glimmerings as it were, there in brighter scintillations. The osprey, foiled in its attempts upon a big oyster, will poise it at an elevation over a rock. The partridge, fertile in artifice, decoys the fowler by feints till the young have got concealed, then she too is missing. When Bougainville touched at the Falkland Islands, the land animals, and even the birds would flock around his crew, till admonished by the acquaintance to observe a prudent distance. The fox, hard-pushed by the hounds and cut off from retreat, will bury himself to the neck in a quagmire, or, Falstaff-like, will play the death-scene stratagem, and so allow himself to be shouldered and carried off to be skinned, awaiting his opportunity when the remissness of his captor shall give him a chance on the leg again. The dog will guide a blind man with all the circumspection of a boy, or counterfeit a rap upon the door and so regain ingress to his familiars of the kitchen, or ferret out a thief who has taken refuge in a crowd. The ratiocinative may even predominate over the instinctive, as in the dog told of by Sergeant Wilde, who would slip his collar at midnight and stray off upon a marauding excursion, always observing the precaution, however, to get back and readjust his collar ere daybreak.

Allied to instinct on the one hand, on the other to reason, is an intermediate class of impulses, the appetites and the passions, or in phrenological nomenclature the affective faculties and the sentiments. Instinct regards the means alone, reason the end through the means ; but these when unchecked by the supervisory monitions of reason look to the end primarily, and irrespectively of the means. Under this division the mammalia are common participants with man.

Metuunt, cupiuntque, dolentque, gaudentque."

Love, rage, revenge, fear, arrogance, dissimulation, joy, grief, all have their counterparts among the quadruped kinds. The horse cheated with a bridle and an empty corn-basket may turn heels upon his rider ; the elephant tricked out of his ration of arrack has been known to seize his mohout and give him a fatal toss into the air. The bull swaggers over the field, vain of success in expelling his competitors ; the lion disdainful perhaps of a meaner prey, seeks out a tiger or a leopard for his antagonist. The porpoise gambols about a ship with the frolicsome glee of a boy at his pastimes, and serpents if fabulous charmers only may themselves be charmed, throwing themselves, like the cobra, into frisky saltations to the rude din of the gong. The dog disconsolate upon the death of his old master has been known to moan for days and finally perish over his grave. Like susceptibilities pertain to the satyrus or orang. Laughter, too, whether physiognomical or vocal, is an emotional phenomenon essentially, and is in analogy with the rapturous caperings of the dog, on regreeting a favorite playmate child. The ironical grimace of the ape and the sardonic grin of the baboon are in no wise exceptional cases.

Hitherto we have been occupied with resemblances, approximations, and analogies ; let us further inquire, whether any specific characters distinguish man in particular, and segregate the race from the promiscuous congregation of the animated tribes at large.

Now the infant at the breast indicates its instinctive propensities as obviously as the young calf, but the parallelism begins to be disturbed in the very dawning of experience. The divergence commences upon memory. That of the brutes is exercised under pure spontaneity exclusively, man's rendered unremittingly subservient to the will. The horse disposed to halt on the road before a particular door checks himself only momentarily perhaps, as if suddenly reminded of his lashing the day before. So the calf dragged into the slaughter-house sets up forthwith a lusty bellowing, as though admonished of its fate by the array of strange implements in connection with the previous abstraction of its companions. More: while the memory of the one class is circumscribed by the limited horizon of the visible and tangible, the human mind is ever prone to range as if in salient lines beyond the verge of that horizon,

> "To climes beyond the solar road."

Another deviation consists in the educability of man. The Canary-bird of to-day evolves its notes in all the mellow richness of an experienced songster; the child becomes a musician only after repetitious efforts and tedious months. The offspring of the pointer or the pacer may with less careful training perhaps excel the parent, but such progression is rather an expansion of instinct on a single line of direction, than an essential transformation of its character. The mocking-bird may be instructed indeed to imitate song-notes foreign to its own, but the hen with all her assiduity is amused with an ovoid fragment of chalk. The rabbit burrows still at the base of a rock like all generations of rabbits aforetime, and the beaver of to-day constructs his chambered dam upon the model of the Noachic epoch.

The argument is not repelled by the consideration, that instinct ranging within definite lines appears in instances as if transcending reason; for its indications though exact for their purpose are limited by strict isolation to such purpose. The wasp is a paper-maker superior to untaught man, yet none the better for having precedence in time before the primitive borderers upon the Hoang-Ho. The eagle pounces upon the hawk in a cycloidal curve, the line of maximum regularity and velocity; the sheep and the kine as barometrical monitors are hardly inferior to the Torricellian gauge. The bee but a week old has furnished in the hexagonal shape of its cells and the pyramidal structure of its roof, a practical solution of an intricate theorem in the quantitative analysis of maxima and minima; yet who for all this forsooth presumes the bee or the eagle or the sheep to have attained to the feeblest apprehension of a single geometrical truth?

A broader principle of distinction is yet to be set forth, remoter in its bearings, weightier in its dependencies. The inferior tribes, hedged in as they are by the contracted circle of perception, and from the absence of an independent volition being further retained in vassalage to the senses, can never exceed the limits of the most rudimentary generalizations. Man, on the contrary, whether spontaneously or otherwise, through the impulsive energy of an auxiliary will, makes a per-saltum advance immeasurably beyond, bounding from generalizations to generalizations, series upon series. Thus man *reflects;* he only takes cognizance of his own cogitations and feelings objectively; he only searches after the *ergo*, or scrutinizes the *quid.*

In such view man is seen to be invested with the imaginative faculty by way of eminence. The dog is never translated in his dreams beyond the kitchen-hearth or the barn-yard; man has taken to himself "the wings of the morning." Pug may daub the wall with his master's brush, or affectedly thrum a violin, or play pantomime with a razor and slit up his own weasand, or "spectacle bestrid" gravely chatter over a newspaper, and all without a solitary conception exceeding mere vocal expressions and attitudes. Was ever yet a cow or a horse seen to climb a terraced bluff, gazing in rapturous ecstasy upon the landscape around? How superlatively insensate and ridiculous to recite a Suliote war-song to a gathering of monkeys, or to harangue a troop of buffaloes on the theory of social reform!

Another peculiarity, viewed as a modal rather than a formative cause, is language. Elementary sounds, indeed, the vocal enunciations of emotion, and the presupposed basis withal of artificial language, are appreciable by the quadruped races not only but by the inferior orders in general. Such maintain an intercommunication of sentiments by consonant modulations of tone, and the domesticated species, moreover, are instructed to connect familiar things with the appropriate names, and to associate with simple phonetic phraseology corresponding acts or behavior. The parrot hails the wayfarer with its voluble gibberish, simply appropriating the successional sound to some idea of sensation, but unlike the child it never attains to any appreciation of words in their dynamic and transferable relations as elements of speech. What story-book reader ever confounded the blattering echo of a parroquet with articulative understanding? Artificial language, the medium of abstract thought and the exponent of all the complicated operations of the mind, and in such aspect the grandest monument of human skill, presumes a power of analysis and a scope of generalization, in contrast with which the mere combination of instinctive or of imitative sounds is as infinitesimality to infinity.

The idea of number, involves the power of generalization in its most abstract and absolute form, and here a chasm opens, spanless and unfathomable. Brutes have no definite conception of plurality beyond its broad distinction from individuality, and entertain in no shape the obscurest notion of mathematical notation. The dog at dominos, is guided by the pictorial, not by the numerical impression, and is indifferent about playing either of two or three pieces bearing the common number required. The baited bull is aware of the difference between one lancer and half a dozen; the tiger, eager to clutch a hunter or two, recoils before a company; yet which of these has ever solved the simplest arithmetical problem, as that "two and two make four?" Man, on the contrary, calculates the visible and tangible not only, but overleaping as if the station-points of space and time, he would scale the interminable vault of heaven to plunge into the cometary vortices, or soar along the stellated arch of the Lacteal way, till dazzled by the gorgeous splendor of their fires, or whelmed in the abysmal sweep of their gyrations.

Thus is man exalted above the various terrene host of animated existence by the transcendent prerogative of genius.

> "Indulsit communis Conditor illis
> Tantum animas, nobis *animum* quoque."

But for man's presence, what face would this terraqueous orb show forth? Solitary wastes, sombre forests, pestilent fens, savage mountains, and desolate fields—

> "A vast immeasurable abyss,
> Outrageous as a sea, dark, wasteful, wild."

Chaos verily would spread his blighting shadow abroad. Here the owl would hold his court, there the lion would make his habitation; day resounding with the eagle's screech and the panther's scream, night echoing to owlhoots and the growl of the bear; trees withering under the locust, flowers wasting before the caterpillar. Now the desert teems with flowers, now the wilderness is vocal with song. Other tribes succumb to extraneous agencies, man has identified his birthright in the subjugation of such agencies. But for him the weak had been trampled down or exterminated by the strong; now the haughty elephant and the huge rhinoceros, under whose tread man is but as a grasshopper, are subdued to his service or awed into exile. The mountain crag has been cleft asunder, and the earthquake-chasm arched over; rivers have been turned from their ancient beds, and seas hedged about by enfilading walls. The turreted peaks of colossal clouds have been channeled by aerial ships; the great central fire itself has been spanned as with a measuring-line, and the thunderbolt even, ictus fulmineus, has been tamed to the guidance of a human hand, and thought and speech are made to vibrate swift as light along its chain-links!

The interval widens as we look into the interior chambers of man's spiritual frame. The sensuous oblectations of the hour—the "being's end and aim" to the inferior genera, are to him but as scansory points in his strides after the immense and the infinite. Brutes live in the present; man lives in the past and the future. He, ever aspiring after the unseen and the untried, finds a fruitionary satisfaction in the "earnest expectation" of that future; but what individual from among the animal groups conceives of a pleasure or a pain beyond to-day?

"'Tis *man alone*, that joy descries
With forward, and reverted eyes."

The inferior orders, thus arrested through defect of constitution within the very vestibule of generalization, are in course unequal to the ideal comprehension of an extraneous, aboriginal Cause, endowed with the attributes of personality, ubiquity and omniscience, and so necessarily blind to all discernment between moral rectitude and moral obliquity. On like grounds must such be accounted as unsuited to a sphere of beatitude essentially spiritual. The soul of the beast is a sensuous soul, prone to annihilation with its material tenement. But what preeminence, queries the pyrrhonist, hath man above a beast, seeing all go unto one place? Where, exclaims a zoologist, is the mind of the homunculus, growing up as it does before our eyes, maturing with years, decaying under decrepitude, and finally with the last expiratory collapse going into extinction? "Ex nihilo nihil, in nihilum redit." The argument is a sophism, a *post quod non*. The doctrine of the revivification of the human soul by a palingenesial energy in its transmigration to a new theatre of action, while it is a cardinal article of faith, becomes from the foregoing considerations a philosophical probability. Not without reason then does the philosopher, when his last sands have run, lay his head upon his pillow with the euthanasial ejaculation on his lips—

"Non omnis moriar."

Art. V.—*On the Application of M. Riench's Test for the detection of Arsenic, to Medico-Legal Inquiries.* By D. P. Gardner, M.D., of New York.

The discovery of arsenious acid in complex fluids has always been an important problem in the science of toxicology, by reason of its frequent use for criminal purposes. From the statistics of the *Viscount de Cormenin*, it appears that between the years 1830 and 1840, three hundred and thirty-five cases of poisoning by arsenic, implicating four hundred and fourteen persons, were investigated by the Parisian tribunals alone; and two hundred cases more were ascertained, but not brought before the courts. The use of this substance, in minute doses frequently given, to produce a lingering death, has entailed upon the chemist the necessity of furnishing himself with the most delicate tests. For as the certainty of detection increases, the temerity of the criminal also becomes greater, so that the cause of morality is directly advanced by these researches.

Numerous tests are recognized in medicine, but all of them, with the exception perhaps of Mr. Marsh's, are of little value in collecting the poison out of its solutions. This part of the process is, however, the most important, for the profession have unanimously agreed that no series of precipitations is satisfactory, unless the metal be finally reduced. If sulphuretted hydrogen be used, as recommended by Dr. Christison, for the precipitation of the arsenic, we are embarrassed afterwards by the collection of the matter thrown down, and then the reduction. This, and many other processes, advised by writers, require much time, with the use of materials not belonging to the medicines of a country practitioner, and they are less delicate than the method of M. Riench for the discovery of arsenic as a commercial impurity in various fluids and re-agents. The reader is referred to No. 126, December, 1841, of the London, Edinburgh and Dublin Philosophical Magazine, for an abstract of M. Riench's paper "*on the action of metallic copper on solutions of certain metals, particularly with reference to the detection of arsenic.*" That article led me to examine the utility of the test recommended in medico-legal questions, and from an extensive series of experiments, I became convinced of its great value, and have communicated this paper with a view of introducing to the notice of the profession, the simplest, and, as I believe, the most effectual method of *collecting* arsenic out of suspected fluids.

The principle on which the test is founded, is that *pure hydrochloric acid* exerts no action upon bright copper—but when certain metallic solutions are present, as an adulteration in the acid, it then attacks the copper, and there is thrown down the reduced metal of the solution. Many metals will thus precipitate themselves, but some do so when in minute quantities, whereas others fall down only when in large amounts. Some salts of mercury are reduced without hydrochloric acid, whilst arsenic in no proportion can tarnish copper, unless the acid be present.

Before Riench's process could be adopted by physicians, it was necessary to ascertain how far organic matters, such as may exist in the contents of the stomach, &c. were calculated to embarrass the operator. The existence of medicines, in the suspected fluids, might also destroy the value of the test. These inquiries, and the hope of simplify-ing, and rendering the process more certain, caused me to enter upon a full examination of the matter.

There are three stages in the manipulation: 1. The collection of the arsenic in Riench's test; 2. Its sublimation; 3. Its separation from other substances.

1. The *collection* of the poison out of a solution, in which no other active metallic agent is present, is most easily effected by the following process. A piece of copper, in the form of wire or sheet, is to be filed bright, and introduced into the suspected fluid; to this is then added a small quantity of pure hydrochloric acid, and the whole boiled together in a glass flask. Upon examining the copper after a few minutes' ebullition, when arsenic is present its surface will either be found coated with a film of the color and lustre of rolled zinc, or a deep black with slight polish; or covered with scales of a black color. These various appearances depend upon the quantity of the poison present, and the extent of the surface of copper. If the boiling be continued after the scales are produced, they drop off, and are lost in the fluid, so that the collection becomes imperfect. All the arsenic present can be separated in this way, therefore the copper not only reduces it, but also affords us an accurate measure of the amount in solution.

In this part of the subject, the most important practical considerations are the determination of the amount of metallic copper to be used, and the method of procedure in dense fluids, such as broths, matter vomited, the blood, &c. In ascertaining the first, two things are to be remembered; 1st, that in the second step of the operation, the sublimation, the tube should be as fine as possible; and 2d, the thickness of the deposit of arsenic is not at all important, excepting that less copper is required, but there is danger of its falling off in scales if too little is used. The only rule that is applicable to all cases is, to examine a known small proportion of the fluid first, and ascertain how much copper is necessary to deprive it of all its poison; the estimate thus made may be applied to the remaining portions of the solution. If sheet copper be used, it should be cut into strips, not exceeding one fourth of an inch wide, and one inch long, so that they may be readily admitted into the subliming tube. The whole amount of poison present may be sublimed in several tubes. To be certain that all the arsenic has been separated from the fluid, successive strips should be introduced, and the boiling continued longer and longer, until no stain is produced in thirty minutes.

The color and consistency of the fluids examined, may be sources of much embarrassment, when the usual tests are employed; and filtration is a necessary part of the process when the fluid re-agents are used. But neither of these qualities opposes serious impediments to the method under consideration. The coagulability of the solution is, however, a serious obstacle, because the arsenic is shut up in the coagula, and cannot be brought into contact with the copper. To remedy this evil, the coagulum should be cut up into minute pieces and warmed along with muriatic acid, the consequence of which is that all the poison will be dissolved by the acid, which is one of the best solvents of arsenic. The solid parts should be afterwards separated, by straining through a strong piece of cloth of close fabric. In this way, the drug can be collected out of blood. When the coats of the stomach are to be tested, they should be cut up, as is usually prescribed, and boiled with dilute acid. In operating upon fluids which are not yet coagulated, it is best to add dilute hydrochloric acid before heating, for in this way they do not form so dense a solid, but the acid exerts its solvent action throughout the mass, and may be afterwards pressed out by straining.

A certain number of copper strips will be thus obtained, coated with arsenic, and the next step is to remove from them any substances which may interfere with the second part of the process. Water, oleaginous matters, and solid particles from the solution adhering to the copper, are all to be removed. The first can be easily effected by bringing the metal into contact with bibulous paper and then warming it, gently. The other substances must be cleared off by introducing the strips into some warm water in a capsule, and moving the vessl so as to communicate a gentle motion to them; friction should be avoided. The cleaning may be continued in three changes of water, and the copper should be afterwards dried as already directed. It is of considerable importance that no empyreumatic vapor should be produced during the second stage of the manipulation.

2. The *sublimation* requires to be conducted with great nicety, when the quantity of poison is minute. The tube used should be about six inches long, and open at both ends, one of which is drawn out to a perforated point. The diameter must be diminished with the amount of metal collected; when that is very small it should not exceed one tenth of an inch, and never be larger than is necessary, and as small as possible to operate with. The strips used in delicate investigations will therefore be reduced in size so as to enter the subliming tube. The greatest attention must be bestowed to cleaning the tube thoroughly; a piece of rag, attached to a wire, should be introduced, and drawn up and down, until all dust is removed; the outside should also be examined, so that it may be perfectly transparent. It must be dried by being warmed over the flame of a spirit lamp.

The copper strips, or as many as may be desired, are then to be introduced into the tube, so as to fill up the narrow end for about two inches. They must not be packed together, for it is necessary that air should pass freely amongst the pieces. The tube is next to be warmed up to the boiling point of water, so that any moisture that may still be present shall be driven off. The heat should be first applied at the occupied end, and the water as it condenses be heated so as to leave the tube entirely. If the condensing fluid be discolored by the presence of empyreumatic matters, this part of the process must be managed with great care, so that the copper be not subjected to too high a temperature. All moisture having been expelled, the tube is to be allowed to cool down, and is afterwards to be brought again into contact with heat, to sublime the arsenious acid.

The pointed end is first to be heated to approaching redness, care being taken that the aperture be not closed thereby, and the tube is then to be slowly moved through the flame until it warms each part in succession, as far as the enclosed metal extends. The temperature at which the sublimation takes place is 380° Fah., which should not be much exceeded. If the process has been well managed, and arsenic be present, it will be found in the form of arsenious acid, occupying a position around the tube about half an inch beyond the copper strips. The part of the glass surrounding the strips will be stained by a whitish opalescent film, which when the heat has been carried high becomes green; it is a salt of copper, as is proved by the action of the ferrocyanide of potassium. This stain does not in any way interfere with the test The metallic copper is encrusted with dioxide.

The arsenious acid of the ring is formed by the action of the oxygen of common air, which, as it passes over the heated metal, combines with any arsenic present. It collects on the nearest cool place, in the form of minute octahedrons of a remarkable brilliancy. The crystals are much more characteristic of arsenic than the reduced metal, which may be counterfeited by many substances. The smallest amount of the acid that can be satisfactorily recognized is the $\frac{1}{500}$ of a grain. In examining it, the tube should be first cut immediately below the ring, and the deposit viewed with a magnifying glass at the open end near the crystals; in this way the influence of the refractive power of the tube can be avoided. The production of arsenious acid from the metal is also advantageous, inasmuch as the bulk is increased in the ratio of their equivalents, or as 75.34 to 99.34 (AsO^3). The field covered by the crystals is also larger than that which would be occupied by the reduced arsenic. There is no sublimate which can rise under the preceding circumstances, that will in any way embarrass the operator.

Arsenious acid thus obtained forms a perfect evidence, and none other will be desired by the chemist. But in medico-legal questions it is proper to collect it, and use the other tests, so as to remove all doubt from the minds of the jury. The best way to collect the acid, is to cut the tube with a file, immediately above and below the ring, and pound up the whole in a mortar of sufficient hardness. The particles of glass cannot interfere with any test to be used. * A portion of the powder thus obtained should be digested in pure water, and tested by ammonia-nitrate of silver, sulphuretted hydrogen, &c. Another part may be reduced with charcoal, and a third portion intoduced into Marsh's apparatus.

In examining the delicacy of the foregoing process, it was found that one part of metallic arsenic in 200.00 parts of fluid can be detected, and $\frac{1}{500}$ gr. sublimed and satisfactorily recognized. Mr. Brett (Lond. Ed. and Dub. Phil. Mag., No. 132) did not succeed in detecting less than 00469, or nearly $\frac{1}{250}$ gr. of metal, by Marsh's apparatus. M. Riench considers the discoloration of the copper as a sufficiently delicate test for arsenic, but in my researches the color of the deposit did not appear so perfect a means of discrimination as the production of the sublimate of acid. Its adamantine lustre and triangular facets are much more distinctive; the ease with which it can be volatilized—its rising without previously fusing, are all characters rarely met amongst chemical substances, and are, collectively, common to no other body. The length of time requisite to conduct an analysis up to the production of the sublimate, when the solution does not offer any cause of delay, does not exceed five minutes, for a small quantity. But the presence of other metals in the solution, as well as the impurities of commercial muriatic acid, are sources of embarrassment which it is necessary to examine before this test can be recommended to the profession. This inquiry forms the third division of our subject.

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* It should always be remembered that glass not unfrequently contains arsenic, which is used in its manufacture as a deoxidizing and decoloring agent. Every sample of glass to be employed in toxicological experiments, should therefore be carefully examined to prove its purity.—Eds.

3. Arsenic exists in many specimens of hydrochloric acid met with in commerce. Such an adulteration is fatal to the delicacy of Riench's test; and the acid used in the foregoing process must be first carefully examined and purified. The method recommended by M. Riench for this purpose is the best—boiling the acid along with bright copper strips, as long as they continue to be stained with arsenic. The quantity of acid must be in proportion to the amount of fluid; there is no danger of using too much. But the presence of remedial agents in the suspected mixtures is a source of much more difficulty. In the November number for 1829 of the American Journal of the Medical Sciences, there is an exceedingly important paper by Samuel Jackson, late of Northumberland County, Pa., on a case of suspected poisoning, which shows how necessary it is to know what substances are present in the fluid submitted for examination, before forming an opinion. Four highly intelligent physicians appointed a committee by the coroner for the examination of the contents of the stomach, &c., of a person recently deceased, drew up a report to the effect—that he had died from the effects of arsenic, when none of that drug existed in the matters analyzed. This serious error arose from the presence of tartar emetic and common salt, combined with the color of the fluids. The tests used were sulphuretted hydrogen, ammonia-sulphate of copper, ammonia-nitrate of silver, and the production of the arsenical alloy with copper. The action of all these reagents on the suspected mixtures, was examined by the side of their effects on a solution of arsenious acid, without detecting the error. But notwithstanding this, and a certain amount of moral evidence produced against the accused, it has been made clear by Dr. Jackson that none of the poison was present.

Of all the substances which may be met with in the matters examined, the salts of antimony give rise to the most serious difficulties. If sulphuretted hydrogen or Marsh's test be used, it is impossible to distinguish between arsenic and antimony, when both are present in certain proportions. It is therefore of the first importance, that this and other similar sources of error should be removed, so as to present to the jury a satisfactory report.

The metallic substances to be expected, whether in broths, medicines, or the contents of the stomach, &c., are the sulphates of copper and zinc, acetate of lead, nitrate of bismuth, corrosive sublimate, calomel, tartar emetic, and nitrate of silver. Of these the salts of silver and lead are precipitated by the addition of sufficient hydrochloric acid, and therefore do not interfere with the test. The sulphate, and other compounds of copper and zinc, do not exert any action in this case. But bismuth, mercury, and antimony, attack the copper strips as well as arsenic.

Bismuth.—Upon the addition of hydrochloric acid to the nitrate, a sub-nitrate is precipitated, but afterwards dissolved by the acid. From this solution is produced, almost immediately, a pinkish grey deposit of a crystalline texture, when clean copper is introduced. The reduced bismuth accumulates on the strips until it drops off. But the presence of this metal does not hinder the reduction of the arsenious acid, so that they are both thrown down together, the only inconvenience being that more copper is required, and care must be taken that the arsenic be not lost by the falling off of the deposit. If both agents be present, the character of the precipitate upon the copper cannot be considered as a test at all, for it will differ with the proportion of either. But by carrying on the process to the second step, the separation becomes perfect, for the arsenious acid sublimes away, and the bismuth remains at the lower end of the tube. In this way, $\frac{1}{500}$th grain of arsenic mixed with $\frac{1}{100}$th grain of nitrate of bismuth was clearly recognized after sublimation. This impurity is not, however, often to be expected in the fluids under consideration.

Antimony.—The entire separation of this substance from arsenic, by the method proposed, forms one of its chief advantages. If tartar emetic be present, it will not in any way affect the copper until hydrochloric acid is added. The first consequence of the introduction of the acid into the fluid, is the precipitation of the oxide of antimony, which it afterwards dissolves. From this solution the metal is rapidly deposited in the form of a grey crust, very much resembling that formed when arsenic alone is present in small quantity, but unlike the latter substance there is no darkening, or falling off of the antimonial crust. It is an exceedingly delicate test for antimony alone; but when arsenic is also present, the appearances depend upon the proportion of one to the other.

In subliming, arsenious acid is separated; this takes place at 380° Fah., long before the fusion of antimony at 800° Fah., which is nearly a red heat. In the case before us, more care than usual must be devoted to the heating of the tube, so that the melting point of antimony be not exceeded. This furnishes us with an additional argument in favor of carrying the process to the second stage, before an opinion can be formed upon sufficient grounds.

Mercury acts much more readily on copper than any of the preceding metals. If corrosive sublimate be present in the solution, it attacks the strips without assistance of any acid. The deposition of mercury takes place without heat, but boiling hastens the process. Under these circumstances, arsenic does not fall down, however great the quantity present. The mercurial deposit is at first grey, and afterwards, as the amount increases, presents all the physical characters of the metal, so that it cannot be mistaken for any other substance. But when the quantity in solution does not exceed one part in fifty thousand of the fluid, it will not fall until hydrochloric acid and heat are added—conditions under which arsenious acid also is reduced. So that mercury can be separated from a solution, except a small quantity, without disturbing the arsenic; but if the amount be very minute, both metals fall down, and the character of the stain is no longer a test. The presence of corrosive sublimate is however rarely to be expected, since it is the more active poison of the two; but the test under consideration may be used for the detection of mercury, as well as arsenic and antimony. Calomel may be looked for in many instances; and although it will not be found in fluids, yet in those cases where the coats of the stomach are macerated in dilute hydrochloric acid, for the solution of arsenious acid, it will also be dissolved and converted into corrosive sublimate. But this is not so great an inconvenience as might appear at first sight, for by sublimation the two substances are entirely separated from each other.

Introducing the copper strips coated with both metals into the subliming tube, and heating, the mercury will rise in the metallic form, and the arsenic as arsenious acid. The extremity of the tube surrounding the copper will not be stained green, as already stated, but be colored with the orange oxide of mercury. A microscopical examination of the sublimate will quickly decide the question whether any arsenious acid be present; for its octahedral form and transparency contrast strongly with the spheres of opaque mercury. In these cases it is best to dissolve the acid away from the metal, by boiling the whole sublimate in pure water and testing again, before an opinion is given.

The results of the examination made on this subject, may be condensed under the following heads.

1st. In consequence of the occasional failure of Marsh's test, as shown by Messrs. Danger and Flandin, and the length of time necessary to carry on the process, when minute quantities of arsenic are present, it has become a desideratum to possess some more certain means of collecting the poison out of solutions. The process recommended by M. Riench is the best yet discovered; but it is not a good test for the metal, because many other substances produce deposits which resemble that of arsenic to a great extent. *But by subliming always from the precipitate collected, the test is increased in value and certainty.*

2d. When solids or coagulable substances are submitted for examination, the addition of dilute hydrochloric acid is recommended as the most promising means of dissolving out the arsenious acid.

3d. Copper strips should be added until no stain is produced after thirty minutes' ebullition.

4th. Antimony and mercury are the only probable sources of embarrassment. The first is separated from the mixed precipitate by never raising the heat to 800° Fah. Large quantities of Mercury are first removed by the action of copper alone; and when it is mixed with arsenious acid in the sublimate, the solution of the acid by pure water separates it from the metallic globules.

5th. The simplicity of the manipulation and the certainty of the result, are exceedingly strong recommendations. But the facility with which a large number of examinations can be made with only a small quantity of matter, is the most valuable feature of the process. If all the operations are conducted in small tubes, an ounce of the suspected fluid will be sufficient to yield ten or more portions of sublimate.

6th. All the difficulty and loss of collecting common precipitates are removed by using the test, and it is liable to fewer sources of failure than those already known.

In view of these advantages Riench's test is recommended to the profession as a valuable contribution to toxicology.

Art. VI.—*The Ganglionic System of Nerves.* By Moses Gunn, M.D., of Ann Arbor, Michigan. An Inaugural Thesis, etc.

(Concluded from page 332.)

The Functions of the Ganglionic Nerves.

In doing this we must reason from analogy, and satisfy ourselves with negative evidence, for we cannot here, as in proving the functions of the Cerebro-spinal system, isolate completely the organs from nervous influence.

In vegetable we have the phenomena of organic, distinct from that of animal life. Here we have the phenomena of imbibition, circulation, and assimilation. Here we have no animal life, and here no central nervous system; but we have a ganglionic system which presides over and regulates this process of vegetation. This same nervous system we see now fully developed in the lower order of animals, where imbibition takes place from the surface of an alimentary canal, and where to circulation and assimilation we have added the function excretion. This system, too, we see wherever there is nutrition developing itself as new functions are added, and accommodating itself to every form of organic life, from that which springing in a night withers in an hour, to that which creative wisdom was pleased to form in his own image.

If, then, wherever we find life, we find this system of nerves, what are we to conclude? Are we to suppose that its functions are different in the vegetable from its functions in that form of organic matter which is raised but a single notch above it in the scale of being? If not, then are we to suppose that its functions are altered at any point in that scale, except that they are amplified as the being is perfected? Rather does not analogy teach us that its functions are the same throughout nature, and that whatever are its functions in the vegetable, they are the same in the animal?

Be this reasoning true or false, the principle it would establish receives support from some of the freaks of nature. M. Brachet details two cases, one mentioned by Professor Meyer of Berlin, of a fœtus where not a trace of the cerebro-spinal system could be found. Another from Morgagni, of a full grown fœtus, well formed with the exception of the brain and spinal cord, which were entirely wanting.

In both these cases the development must have been from the ganglionic nerves alone. Both possessed vegetable life, and nothing more. Anatomy, too, we have found supporting this position. We have seen that the principal organs concerned in nutrition, are almost exclusively supplied by nervous influences from the ganglionic system, and the scalpel shows that filaments from this system are sent along the arteries, maintaining their size by ganglionic enlargements to every part of the system, so that whenever we have a particle to be absorbed, and its place refitted, we have there a filament from the ganglionic system to perform the work. Let us seek for evidence in favor of this opinion by considering the special functions of this system of nerves, or its influence over the several organs concerned in nutrition, and here let me repeat what I have before said, that we must satisfy ourselves with negative evidence. And why should we not? If we isolate completely an organ from cerebro-spinal influence, and still its proper functions are performed, it furnishes clear and conclusive proof, that the performance of those functions is independent of that influence; and though of a negative kind, it furnishes evidence equally clear that it receives its influence from another source, and that source can be none other than the ganglionic system, the influence of which let us consider upon the function of

Respiration.

It is in respiration that we see the union of the two lives, organic life and the life of relation. Inspiration and expiration are the functions of the latter, while excretion and the chemical changes wrought in the lungs are the work of the former.

The diaphragm and the external muscles of respiration, the servants of animal life in this function, are controlled by cerebro-spinal influence, while the vital action within the lungs, we suppose to be the result of ganglionic influence.

In support of this supposition, let us call in the aid of anatomy. We have seen that the pulmonic plexus is formed principally by filaments from the pneumogastric nerve, that the anterior pulmonic plexus is composed entirely of filaments from this nerve, and its recurrent branch, but that passing down behind the branches, this nerve enlarges and assumes the *pearly tint* of the *sympathetic*, that at *this point* it gives off branches to join those from the three superior thoracic ganglia, and thus form the posterior pulmonic plexus, while the remainder of the nerve passes on to the stomach.

It will be recollected, too, that we saw upon the trunk of this nerve, a ganglion which communicated with the other ganglia, and directly with the superior cervical ganglia of the sympathetic.

This ganglion, of course, imparts to the nerve, or a portion of it, the peculiar property of ganglionic nerves. This nerve, too, gives off branches both of motion and sensation; its superior laryngeal branch is a nerve of sensation; its recurrent branch is a nerve of motion. Thus we see this nerve contains three kinds of filaments, viz. sensitive, motor, and ganglionic. That they are not ganglionic, we believe, because they are not given off at the enlargement, and have not the appearance of ganglionic nerves.

That they are not motor, we believe, because we must have sensitive nerves in the lungs, to convey to the brain the necessity of respiratory movements; or in other words, we must have excito-motor nerves in the lungs, and the other portion of the plexus is composed of branches from the recurrent or motor nerve. This second portion of this plexus being motor, we need to control the contractions of the bronchi during expirations. Thus we have disposed of the anterior pulmonic plexus, and we proceed to the consideration of the posterior. This plexus is composed, in part, of branches from the enlargement of the pneumogastric, where the nerve assumes the pearly tint of the sympathetic. These branches we conceive to be ganglionic, from their origin, appearance, and union with the branches composing the remainder of the plexus, viz., the filaments from the three superior thoracic ganglia of the sympathetic. Here, then, we have a ganglionic plexus, which sends filaments to every part of the lungs. Now what is the function of this plexus? We have inspiration and expiration, performed by cerebro-spinal influence. We have contraction of the bronchi, from the anterior pulmonic plexus, and we have sensation from the same source. Now, what function remains for the posterior pulmonic plexus to control, entirely which, we *know*, is formed in part, and have good reason to believe of ganglionic nerves? Obviously *Excretion*, and the *Chemical Changes.*

Now how do the changes observed after division of the pneumogastric bear upon this view of the pulmonic plexus? Let us see. On division of the pneumogastric, death ensues in eighteen or twenty-four hours from an engorged state of the lungs, with venous or unchanged blood. The bronchi, too, we find clogged with mucus. Now we have made the pneumogastric to supply the greater portion of filaments forming the plexus, which we imagined to preside over excretion, and the chemical changes. We have ascribed it to the nervous influence which produces contraction of the bronchi. Now let us again look at the cause of death after division of the pneumogastrics; a contributing cause is the clogging of the bronchi with mucus.

During inspiration, the bronchi remain in their natural or dilated state, thus affording a free and open passage to the air. During expiration, we have the contraction, which, lessening the diameter of the bronchi, causes the air to pass along these tubes with increased force.

It is this increased force of expiration that clears the bronchi of mucus. Thu swe see that when the bronchi remain dilated during expiration, as during inspiration, the air passes with equal force either way, carrying the mucus into the lungs during inspiration, as it does towards the trachea during expiration. It is then from the suspension of this contraction, that we have the clogged state of the bronchi.

Now let us look at the chief cause of death, viz., the engorgement of the lungs with nervous blood.

Death, we have said, ensued in eighteen or twenty-four hours. Now could we isolate completely the lungs from that nervous influence, on which depends the purifying changes of the blood, death would as speedily follow as if the animal were placed within a vacuum, or plunged beneath the surface of water.

But as after the division of the pneumogastric nerves, the animal does not thus speedily die, it is evident that the lungs still receive nervous influence, though not in sufficient quantity to support life for any great length of time. Whence this influence? From the superior thoracic ganglia, which send filaments to assist in performing the posterior pulmonic plexus. Thus we see that the functions of a portion of the pneumogastric are the same as those of the sympathetic, and that the plexus formed from each presides over the purifying changes of the blood in the lungs.

We next proceed to a consideration of the

Influence of the Ganglionic System on the Heart.

In the function of respiration we saw blended the two lives: in that of circulation, though performed principally by a central muscular organ, complicated in structure, and precise and regular in its motions, we see but one, and that the perfection of organic life.

It is here that we see organic life so closely approaching the life of relation, that we almost start at the perfection, and seek for it a place higher in the scale of being. Yet perfect as it is, and assuming as it does a form so closely resembling animal life, it is still independent of the animal and beyond his control. Remove entirely the brain, and by producing artificial respiration, the heart still continues to pulsate, sending the blood its accustomed rounds. When the animal is thus dead, the heart still lives keenly sensible to its proper stimulus.

In this *sensibility* it asserts its claim to animal life. But the sensibility on which this claim rests, is only of a peculiar kind, and not that which is conscious of touch, but sensible only to its peculiar stimulus, the blood. It is probably derived from the nerves of animal life, for we have seen that the pneumogastric contributed filaments to the formation of the cardiac plexus, and although in the reception of these filaments, and the possession of this kind of sensibility, it is raised above simple organic life, its independence of animal life assigns it its place at the head of the former, under the control of the ganglionic system. That it is controlled by this system admits of direct proof. M. Brachet instituted a series of experiments to elicit this fact. After removing the brain, taking care to produce artificial respiration, dividing the spinal cord and pneumogastrics in three several experiments, and finding that the heart still continued its movements, he proceeded to the following experiment, which we give in his own words.

"On a young dog I placed a double ligature as near as I could to the origin of the left subclavian. Then dividing the artery between the two ligatures, I exposed the cardiac nerves, traced into the chest, turned back the first rib by disarticulating its sternal extremity, and arrived by degrees at the cardiac plexus. When I thought I had it isolated, I carried the scissors into the wound, and divided the plexus. The circulation, which but an instant before went on perfectly well, was at once arrested, the heart ceased to contract, the animal became convulsed and died. I opened the chest, and the examination of the parts satisfied me that the cardiac ganglion was perfectly divided, so as to isolate the nervous filaments which proceed from it, to form the cardiac plexus." Thus we see that though the cerebro-spinal system be left untouched, if we deprive the heart of ganglionic influence, its motions instantly cease.

Having now seen that the motions of the heart depend upon ganglionic influence, let us proceed to a consideration of the

Influence of the Ganglionic System on the Abdominal Viscera.

In doing this, let us again refer to its anatomy. We have seen that constituting the prævertebral portion of this nerve in the abdomen, we have the semilunar ganglia, and solar plexus, from which, as from a common centre, radiate nerves to the different organs of this cavity. With the exception of the alimentary canal, the upper portion of which receives the influence of the pneumogastric, the abdominal viscera receive their nervous power from the ganglionic system alone. The functions of these organs, then, we are led to believe, are controlled by nervous influence from this source ; but that the secretion of the kidney, or pancreatic or biliary secretion, depends solely on this source for nervous power, we can neither directly nor indirectly prove.

So deeply situated are the organs, and so extensive are their nervous connections, that it would be impossible to isolate a single organ from nervous influence.

But though nothing can be *proved* respecting the influence of the ganglionic system on these organs, we can arrive at legitimate conclusions. We see that the organs receive nerves, and as we cannot believe they are useless, we *must* conclude that they preside over and control the functions of the organs to which they are sent. But the stomach receives nerves from another source, viz., the pneumogastric. Let us see what influence this nerve exerts over its functions. In the stomach we have the secretion of the gastric juice, and the peristaltic motion by which every portion of the contents is brought successively in contact with its surface, and by which, when chymified, it is expelled.

In the stomach, too, we have the sensation of hunger and satiety. We should naturally expect the pneumogastric was the source through which the brain received the latter sensations ; but whether either of the other functions of the stomach is governed by this nerve, we well might hesitate about deciding without some experiments, to which for the solution of our doubt let us appeal. M. Brachet has made some interesting experiments with regard to this subject.

First, with respect to hunger,—he made a spaniel to fast for twenty-four hours, and then divided the pneumogastrics below their recurrent branches. The animal no longer sought for food, but when it was given him he continued to eat, till he was unable to swallow, the œsophagus being full. In his next experiment he made two cabias to fast for eighteen hours. They sought food in every direction, and uttered cries indicating their hunger. He then divided the pneumogastrics, taking the precaution to make an opening in the trachea. He then placed before them a kind of food, which they had before devoured with great avidity. They lay down without noticing it. He then placed it under their noses, when they ate, but with a sort of indifference. He then fed them by separate pieces; they ate till deglutition became impossible.

His next experiments were made upon these nerves with reference to digestion. After making a dog to fast for twenty-four hours, he satisfied him with meat; immediately after, he divided the pneumogastrics; ten hours after, he killed the animal, when he found the stomach distended, and the small intestines empty. On opening the stomach he found the alimentary mass unchanged except on the surface, which was converted into a layer of greyish mucous chyme. After a fast of fifteen hours, he made an old horse eat a quantity of oats. The pneumogastrics were then divided. Eight hours after the animal was killed by introducing air into the jugulars.

The stomach, which was distended with the oats he had eaten, on being opened, presented the grains on the surface, in a half digested state, while those occupying the centre were unchanged. The lacteals were empty. These experiments, which were many times repeated, uniformly presented the same results, the sensation of hunger and satiety, and also the peristaltic motion of the stomach, being destroyed by division of the pneumogastrics.

The result of the first of these experiments was just what we would be led to suspect, for hunger and satiety, being impressions made upon the stomach by the absence or presence of food, if we cut off the only communication between it and the brain, the brain no longer takes cognizance of those impressions, any more than after division of the spinal cord, it does of certain impressions made at the other end of the alimentary passage. In the other experiments, we see that though motion was destroyed, the stomach still continued to secrete the gastric juice, and the process of chymification was completed on that part of the alimentary mass, which, from its situation, could be acted upon by this secretion. Motion of the stomach, then, is a function of the pneumogastric, and secretion of the gastric juice depends on the *ganglionic system.*

We have yet to consider the influence of this system on the functions of generation, capillary circulation, and exhalation. This we shall do very briefly. In studying the anatomy of the sympathetic, we saw that the spermatic nerve constituted one of the radiations of the solar plexus.

These nerves, as their name indicates, supply the testicle, and afford to it most of its nervous power. It, however, receives from the hypogastric plexus, which is composed of branches from both systems, a few additional filaments. It is probably from this source that the testicle derives its exquisite sensitiveness, and not the power of secretion.

This we believe is conferred upon it by the ganglionic system, through the spermatic nerves; and, in support of this view, we merely refer to the numerous cases of paraplegia in which this function is not suspended, and mention one from M. Brachet, of a soldier who, for eight years, suffered from paraplegia. In the inferior extremities, and in the lower fourth of the abdomen, both sensation and motion were entirely lost. The spermatic secretion was perfect, erection took place, and during the period, he became the father of two children.

Let this suffice for this function, and in reference to the remaining two, capillary circulation, and exhalation, we need only refer to the numerous every day examples of both—hemi and paraplegia, where, though the cerebro-spinal influence is entirely suspended, we have still uninterrupted, the capillary circulation and cutaneous exhalations. Whence the power that presides over these functions, when animal life is thus abolished? We can have but one answer, the *ganglionic system*.

In thus summarily disposing of the last three functions, we have not overlooked their magnitude, or mistaken their importance. We are well aware that they alone afford subject matter for a respectable thesis, and that in them we have most powerful arguments in support of our position.

But in a paper like this, we would avoid tedious length, and aware that a few selected arguments are as efficient as the whole array, we leave the subject.

ART. VII.—*Statements and Remarks on Yellow Fever*. By H. W. VAN HOVENBERG, M.D., Quarantine Physician to the Port of New York.

THE records of the New York quarantine furnish ample proofs of the importation of a malaria capable of producing yellow fever.

Every year there is more or less yellow fever in our hospitals; many of the cases admitted are sick on their arrival, but it is not uncommon for others to sicken while performing quarantine; and vessels have arrived here—from ports where yellow fever was known to have existed at the time of their departure—with all on board in good health, and after lying at quarantine ten or fifteen days, yellow fever has broken out among the crew; and persons from the shore, employed to discharge and cleanse such vessels, have died from black vomit in the hospital.

You ask me for facts. The following are taken from the Hospital Register; they have all occurred under my observation, and I can vouch for their correctness. From the imperfection of our register they may not be as full as you desire.

Case of the British brig of war Buzzard.—The Brig Buzzard arrived at the quarantine ground, Staten Island, about the middle of June, 1838, from the coast of Africa; the coast was sickly, and they had lost a number of men there, but the crew were all in good health at the time of their arrival. The vessel, being from a sickly port, was placed in quarantine for thirty days. On the third of July, fifteen or twenty days after their arrival, a man died on board after two days' illness. (He was reported to the Health Officer by the surgeon of the vessel, Dr. Roberts, as having poisoned himself by swallowing tobacco to avoid doing duty on board the ship.) On the following day the vessel was visited, and one of the crew sent to the hospital; in ten days thirteen of the crew were admitted with yellow fever. The following are the names and dates of admission:—

July 4th, Michael Tobin,
" 5th, Crosby Lovett,
" 6th, Robert Haggerty,
" 8th, Thomas Lewis,
" " Thomas Dyer,
" " Thomas Mavid,
July 9th, Lieut. Walter Pollard,
" 12th, Henry Seymour,
" " Midshipman Floyd,
" 13th, Thomas Jones,
" 14th, John Coward,
" " Martin Hough,
14th, John Willmott.

Two of these died, Crosby Lovett on the 10th of July, and Thomas Lewis on the 13th, with black vomit. Lieut. Pollard had black vomit, but recovered.

On the 14th of July, the crew were all landed, and remained on shore about six weeks, during which time the vessel was thoroughly ventilated and cleansed. The Buzzard sailed for Europe in October.

Case of the pilot boat La Fayette.—The pilot boat La Fayette was chartered for Havana. She remained in that port ten days in the month of June, 1838, and returned to New York without taking any cargo. At the time of her arrival at the quarantine the crew were all well, and there had been no sickness on board while in the port of Havann, or during the passage. The vessel was placed in quarantine for thirty days; persons who had not been to sea with her took charge of her, and while engaged in moving the ballast, whitewashing the hold, &c., four of them sickened with yellow fever.

Joseph Lockman, a pilot, died with black vomit, in the city of New York.

Jas. Britton, a pilot, had yellow fever, and recovered.

Isaac Oxer was admitted into Marine Hospital June 29th, and died with black vomit July 3d.

John Oxer was admitted July 8th with yellow fever; he recovered.

Case of the ship Gustave Edouard.—Statement of Capt. Negret, taken on her arrival at the quarantine, July 23, 1843.

The ship Gustave Edouard, from Havre, arrived at St. Pierre Martinique in June, discharged cargo, and took in ballast *from the water.* The vessel remained in the port eighteen days, and sailed for New York July 9th. The captain obtained a clear bill of health, and was assured by the physician who granted it, that the island was entirely free from yellow fever. The crew were all well when the vessel sailed, but on the second day out the cook was attacked with fever, and died July 19th, four days prior to the vessel's arrival.

Two men were sent to the hospital, both well marked cases of yellow fever. The vessel was placed in quarantine for thirty days; while engaged in cleansing the vessel, several of the crew sickened and were sent to the hospital—one of them died with the black vomit.

Chas. Terrein, admitted July 23d.	Discharged August 1st.
Guillaume Jean, " " "	" " 20th.
Paul Perron, " " 31st.	Died " 6th.
Balthasar Bulot, " August 2d.	Discharged " 7th.
Bulot relapsed and was re-admitted Aug. 17th.	" Sept. 1st.
Louis Put, admitted August 19th.	" " "

Case of the brig Growler, from New Orleans.—Statement of Capt. Spear on arriving at the quarantine ground, Staten Island, Aug. 9th, 1843.

The brig Growler sailed from Boston, May 14th, 1843, bound to New Orleans. Arrived there June 12th, discharged cargo, &c. Immediately on the vessel's arrival, four men were paid off and discharged. The remainder of the crew enjoyed good health while at New Orleans; and I heard of no sickness among the shipping or in the city. The vessel took in a cargo consisting of wheat, pork, lard oil, &c.; and sailed July 10th for New York. On the day of sailing, shipped four men instead of those discharged. All continued well until *July 27th*, when three of the seamen sickened with the usual symptoms of fever; and on the 30th July, not one of the men was fit for duty. One of the men that sickened first, died July 30th, and another on the 31st July. The vessel went inside the breakwater Aug. 4th, she being leaky and the pumps choked. Having had a survey, sailed Aug. 6th from thence for New York.

(Signed) JOHN SPEAR.

The following cases of yellow fever were admitted into Marine Hospital from brig Growler:

Aug. 9th, John Brown.	Discharged Aug. 15th.
" 13th, John Hart.	" " 25th.
" " Robert Havinu. (Mate.)	" Sept. 1st.
" 16th, John Spear. (Captain.)	Died Aug. 21st.

Samuel Hopkins, captain of the lighter Daniel Barclay, while employed in lightening the cargo of the brig Growler to the public stores at quarantine, was attacked with yellow fever; he was admitted into the hospital, Aug. 28th, 1843, and died with black vomit Aug. 31st. Hopkins had very imprudently and unnecessarily gone into the hold of the brig, and remained there about twenty minutes.

Case of James Harcourt, M.D.—Dr. Harcourt, while in the discharge of his duties as Deputy Health Officer, was frequently on board of vessels from sickly ports; he was attacked with yellow fever Aug. 28th, 1843, his disease was well marked.

Case of M. H. Van Dyke, M.D., Assistant Physician.—Dr. Van Dyke was attacked the afternoon of the day on which Dr. Harcourt sickened, Aug. 28th. The Dr. had not been on board of any vessel from a sickly port; he must have taken the disease either from his close attendance on the numerous cases of yellow fever in the hospital, or from having been in the public store where the cargoes of the infected vessels were ventilating.

Case of the barque Eugenia, from Vera Cruz.—The Eugenia arrived at quarantine ground, Staten Island, Aug. 10th, 1844, after twenty-six days' passage from Vera Cruz.

Two passengers, one of whom had been ill two, the other three days, were sent to the hospital with yellow fever.

D. Pedro La Fonque was discharged Aug. 21st. Mathias Clasar died Aug. 12th, two days after he was admitted.

C. G. Wallace, captain of the lighter engaged in discharging the cargo of the Eugenia, was admitted into the hospital with yellow fever Aug. 28th, 1844, and died Sept. 10th. A well marked case of yellow fever.

ART. VIII.—*Case of Doubtful Sex.* By WM. JAMES BARRY, M. D., of Hartford, Conn.

IN March, 1843, I was requested to examine the case of Levi Suydam, aged 23 years, a native of Salisbury, Conn. At the exciting and warmly contested election of the spring of this year, almost everything bearing the semblance of the human form, of the male sex, was brought to the ballot-box. It was at this time, and under these circumstances, that the above mentioned person was presented, by the whigs of Salisbury, to the board of Select-men, to be made a freeman; he was challenged by the opposite party on the ground that he was more a female than a male, and that, in his physical organization, he partook of both sexes.

The following was the result of the first examination. On exposing his person, I found the mons veneris covered in the usual way, an imperforate penis, subject to erections, and about two inches and a half in length, with corresponding dimensions, the dorsum of the penis connected by cuticle and cellular membrane to the pubis, leaving about one inch and a half free, or not bound up, and towards the pubic region. This penis has a well formed glans with a depression in the usual place of the meatus urinarium, a well defined prepuce, with foramen, &c. The scrotum not fully developed, inasmuch as it was but half the usual size, and not pendulous. In the scrotum, and on the right side of the penis, one testicle of the size of a common filbert, with spermatic cord attached. In the perineum, at the root of the corpora cavernosa, an opening through which micturition was performed, this opening large enough to admit the introduction of an ordinary sized catheter. Having found a penis, and one testicle, though imperfectly developed, and without further examination, I gave it as my opinion, that the person in question was a male citizen, and consequently entitled to all the privileges of a freeman.

On the morning of the 1st Monday in April (Election day) I was informed that Dr. Ticknor would oppose Suydam's admission. Suydam came forward, Dr. Ticknor objected. I then stated to the meeting, that from an examination I had made, I pronounced the person in question to be a male, and requested that Dr. Ticknor might, with the consent of Suydam, retire into an adjoining room, and examine for himself. This was done, when Dr. Ticknor stated to the meeting that he was convinced that Suydam was a male. Suydam accordingly was admitted a freeman—voted—and the whig ticket carried by one majority!

A few days after the election, it was told me that Suydam had regular catamenia. I then commenced further investigations, and learned from Mrs. Ayres, the sister of Suydam, that she had washed for him for years, and that he menstruated as regularly, but not as profusely, as most women. I next saw Suydam, who very unwillingly confessed that such was the fact. I then requested him to meet Dr. Ticknor and myself the next day at my office; when the following additional particulars were elicited. Said Suydam is five feet two inches in height, light colored hair, fair complexion, with a beardless chin, and decidedly of a sanguineous temperament, narrow shoulders, and broad hips; in short, every way of a feminine figure. Well developed mammæ, with nipples and areola. On passing a female catheter into the opening through which micturition was performed, and through which, he again stated, he had a monthly, periodical, bloody discharge, instead of traversing a canal and drawing off urine, the catheter appeared to enter immediately, a passage similar to the vagina, three or four inches in depth, and in which there was considerable play of the instrument. He stated that he had amorous desires, and that, at such times, his inclination was for the male sex; his feminine propensities, such as a fondness for gay colors, for pieces of calico, comparing and placing them together, and an aversion for bodily labor, and an inability to perform the same, were remarked by many.

I further learned from an old lady who was present at the birth of Suydam, that on the second day after his birth, Dr. Delamater, who attended as accoucheur, made with an instrument, the opening through which he has ever since performed micturition.

ART. IX.—*Extracts from the Recorded Proceedings of the New York Medical and Surgical Society.*

REGULAR MEETING—MAY 16, 1846.

DR. POST stated that the patient whose case he had reported at a previous meeting, and whose thigh had been amputated, had since died. He had cough, hectic, purulent expectoration, and all the symptoms of tubercle, but the principal cause of death was a *bed-sore*, which existed before he entered the hospital. On examination the upper lobe of one lung was found inflamed, and contained two cavities, the size of a bean, filled with pus; only one or two small tubercles were found. There was a question whether the abscesses were tubercular or metastatic. There was no affection of the veins. Dr. P. also reported a case where alarming symptoms were produced by *Iodide of Potassium*. The patient was a lady, aged 22, who had an enlargement of the uterus. She was ordered a solution containing ʒj. to ℥vj. water, a table-spoonful three times a day. After two doses she complained of smarting and soreness of the throat. This was regarded as an effect of the weather, and she was directed to continue the medicine. She took the third dose, and soon after the soreness of the throat became very severe, and was followed by intense pain in the temples, great heat of skin, and nervous irritation. The features became very much swollen and distended, especially the upper lip; pulse 160, great dyspnœa, and the whole state of things alarming. Warm drinks and other remedies were given, which produced perspiration and sleep. A cathartic was administered, and in the course of three days she had recovered. The medicine had been put up by Mr. Adamson, and was undoubtedly pure. Mr. A. had known similar symptoms to follow a small dose of Lugol's Solution. Instances were given by several members where ptyalism, conjunctivitis, nervous irritations, &c., had followed small doses of the remedy; also where very large doses had produced no effect whatever.

Dr. GARRISH stated, that the case of *uterine hemorrhage* reported at last meeting, had recovered without any unfavorable symptoms. The milk did not appear till the 18th day.

Dr. WHITE reported the case of a young lady, who was seized a few days ago with severe pain and tenderness in the abdomen, accompanied with faintness. Gave her an emetic, and afterwards bled her, and administered calomel and ipecac, with partial relief; to-day, a rheumatic inflammation appeared in the left knee. There was considerable diarrhœa and tenesmus. The question suggested itself whether this was a rheumatic inflammation of the bowels? Dr. W. had also seen a patient with a *tumor* about four inches long and two broad, in the right groin. It lay directly in the track of the inguinal canal, and appeared to adhere to Poupart's ligament. It was impossible to tell how far it extended internally. It commenced above eleven months since. The patient had become pregnant and borne a child since its appearance. There was slight tenderness, but the general health was good. Also a case of *hemorrhoids*, partly external and partly internal, which came down at every stool. Had applied *caustic potash;* the pain caused was severe, but no bad consequences had followed. The patient is considered cured.

Dr. SWETT stated the case of a young lady who had had, when a child, *rheumatic inflammation of the heart*. This spring she was seized with acute rheumatism, accompanied with dyspnœa. On examining the heart, a *friction sound* was heard over the apex, and there was a good deal of action, but no pain nor palpitation. Supposing that pericarditis existed, mercurials were ordered, but the physician in attendance discontinued them after a few days' use. A fortnight after, she was found in the same state; the mercurials were renewed, and after salivation was established, a perfect cure was effected. Dr. S. also reported the case of a child six years of age, who first had *rheumatism* of the knees and ankles, and was convalescent, but in a week afterwards was found to have extremely rapid pulse, and violent action of the heart. An examination furnished evidence of pericarditis and double pneumonia. The heart was also found to be considerably enlarged. She was put upon a mercurial course, and the pneumonia soon relieved. Ptyalism was kept up for two months, at the end of which time the rough sound of the heart was somewhat modified. The evidences of enlargement of the heart continue.

REGULAR MEETING—JUNE 6, 1846.

Dr. GARRISH stated the case of a man, a tailor by trade, who, while intoxicated, received *a blow on the head* from a bar of iron, which stunned him. He was able, however, to walk home, and had his head dressed by a surgeon. Suppuration ensued and the wound closed. Two months afterwards Dr. G. was called to him, and on examining the head, found the bone depressed. He was at the time laboring under pneumonia, from which he recovered. After his recovery he was attacked with vomiting: there was no pain in the head, nor delirium, except to a slight extent at night. After the vomiting had existed a week, Dr. G. proposed to remove the depressed portion of bone. This was objected to by the family, and he was sent to the hospital, where he remained a week; the vomiting still continuing, after he came out, he soon after died,—about three months after the accident. On examining his head, the bone was found considerably depressed, the membranes beneath being thickened. There had also been some effusion of blood. The brain was softened on that side, and there was an effusion of sero-purulent fluid. Dr. G. exhibited the bone.

Dr. G. also stated a case of *Erysipelas after vaccination*,—spreading to the fingers and neck. The arm was twice its natural size—vesicles formed, and a fatal termination threatened. Dr. G. observed that he had, in several instances, found good effects from the application of cloths dipped in brewer's yeast, in Erysipelas.

Dr. Post gave an account of an operation performed by Dr. J. Kearney Rodgers, for *congenital occlusion of the vagina.* The patient was 24 years of age. There had been efforts at menstruation; the external organs were well formed, and half an inch of vagina existed. The uterus could be felt through the rectum. A catheter having been introduced into the bladder, and a finger into the rectum, an incision was made between them with the scalpel. The operation was continued in part by the handle of the scalpel, and of sufficient depth to admit the whole forefinger, when the cul-de-sac was reached. This was distinguished by fluctuation. An incision was now carefully made through the membrane. A thick dark fluid escaped. A sponge was then introduced to dilate the opening.

Dr. M'Cready stated that he was now affected with a severe catarrh, affecting especially the eyes, which had recurred regularly every year at the commencement of hot weather, for six or seven years back. It affects first the eyes, which are much inflamed and itch intensely; it then attacks the schneiderian membrane, and finally affects the bronchial. It ordinarily commences early in June, and continues till August. This year the whole of June was cloudy, and the attack did not occur till the 5th of July, almost the first clear and hot day.

Dr. Beadle reported that the case of *Chorea*, which he had cured by Fowler's Solution, had relapsed, and that the remedy had failed on a second trial. The *Oxide of Zinc* was now given successfully. There was much disturbance of the heart in the case, which was cured with the other symptoms.

Dr. Wilkes stated a case where the *Tincture of Aconite* had been taken by mistake, instead of *Tincture of Rhatany*. Two doses of 30 drops each were taken before the mistake was discovered, which produced coldness of the extremities, constriction of fauces, &c.

Dr. Foster reported a case, in which *a pin had been discharged by the rectum*, after having remained in the intestinal canal nearly five months, producing severe pains in different portions of the canal.

Dr. F. reported a cure of *Necrosis of the lower jaw*, in which a large portion of the bone came away at once.

Regular Meeting, June 20, 1846.

Dr. Wilkes stated having been called in consultation with Dr. G. to a lady who was then in *labor.* The lady manifested not a little surprise that another physician should have been called. The labor had been tedious, but unattended with any other difficulty. She, however, was shortly confined, and was soon afterwards seized with convulsions, and expired after having but three or four. Dr. W. remarked that the lady had been bled about ℥xii. only. He had supposed that she had been bled more largely. Dr. W. expressed it as his opinion, that not only in this, but in similar cases, bleeding had not been carried sufficiently far to produce the desired effect.

Dr. Vandervoort stated that he had used the *Tinct. of Iodine, as an application to Hemorrhoidal Tumors*, with highly satisfactory effects in a case to which it had been applied.

Dr. Post reported a case of *Vesico-vaginal Fistula;* that the urethra was open, but much contracted; that efforts had been made to dilate it by the use of the catheter, but owing to the irritability of the parts, he was obliged to discontinue further efforts. The patient left the hospital, and after an absence of six months, returned: when, upon examination, he found the urethra nearly or quite closed. There was difficulty of retaining urine in the erect position, but was able to retain urine all night, and while in the recumbent posture.

Dr. Bulkley reported that he had recently seen a case of *Syphilitic Chlorosis* in a male. The disease had been spoken of by Ricord. Dr. B. was unable to distinguish any bruit de soufflet. The treatment indicated in this, as in all cases of this description, was to continue the use of mercury, in some one of its forms, with chalybeates.

Dr. Foster stated that he had been called in consultation to a lady with *Uterine Hæmorrhage.* He found the patient exsanguineous. Os tincæ dilated 2½ inches, and capable of further dilatation. The woman was feeble and sighing; ergot had been given. The placenta was partially over the os, and was separated for an inch or two from its edge. Dr. F. advised the use of opium, stimulants, and application of cold. The next day reaction had been established, and hæmorrhage returned in gushes. The physician in attendance endeavored to turn the child, and to expedite labor. He succeeded in bringing down one leg; but relaxing his hold, the leg returned, when the head came down, and delivery was safely accomplished.

Dr. Griscom stated the case of a lady who died of *Puerperal Peritonitis*, after her first labor. She had aborted on a former occasion. At this time she had gone but six months. She had been long subject to pains about the hips, back, &c. Labor progressed well; the placenta came away in a reasonable time, and at the expiration of 48 hours, the pain set in. Pulse rose to 140, accompanied with great distension and excessive tenderness of abdomen, which was unallayed by the treatment, and terminated in death in seven days. *Autopsy.*—Within the cavity of the peritoneum was a copious effusion of lymph; one of the ovaries was enlarged, and contained coagula of blood; there was, also, extensive phlebitis of the uterus. Some of the veins were found to contain pus. The whole of the peritoneal coat of intestines, from the jejunum downwards, was softened, and loosened from its attachment to the muscular coat, so as to be stripped from it with great ease. These appearances confirm the modern theory of the essential nature of the disease, viz., an inflammation of the uterus, and especially of its veins.

Dr. Green read a paper on the use of *Nitrate of Silver* in acute laryngitis. (See last No. of Jour., p. 355.)

Dr. Bulkley mentioned a case of purpura in an infant, eleven months old, which was brought to his office for consultation by a medical friend. The child was pale, and of a cachectic hue, though not much emaciated, had several teeth, and was still nursing its mother, who was of a rather delicate constitution, but in ordinary health. The disease had first appeared a few days before, and was characterized by elevations varying in size from that of a large pea to that of a hickory nut, of a dark purplish color which was permanent under pressure of the finger, firm to the touch, and scattered more or less on the back and limbs, especially along the spine, with a few on the face and forehead, and one on the lower part of the right cheek about an inch and a half long and an inch broad, elevated and indurated, having the feel of a phlegmonous tumor, and painful to the touch. In some of the smaller elevations on the back, the purplish discoloration extended beyond the limit of the induration. The child's appetite was good, and its bowels said by the mother to be in good order in every respect. Dr. B advised the administration of a quarter of a grain of sulphate of quinine in solution, with about two drops of elixir vitriol, every three hours, to give it animal broth and wine whey, to bathe it in tepid water every second night, and to paint the elevations with the tincture of iodine. When seen at the end of three days, after this course of treatment had been carefully followed, its general health was much improved, the eruption had nearly disappeared, the large indurated tumor on the side of the face had very much diminished, and no new spots had appeared. The continuance of the quinine at longer intervals was advised, with nourishing diet and the warm bath. It was not seen again by Dr. B., and recovered so rapidly afterwards that the attending physician discontinued his visits in a few days more. There was no hæmorrhage from any part. Dr. B. remarked that he had never before met with a case of purpura of this form. It differed from *p. simplex* in being accompanied by induration and elevation, and from *p. urticans* in the absence of itching, as well as in the larger size of the elevations, and their location. The indurated elevations, as well as the circumscribed character of the spots, distinguished it also from *p. ecchymotica*, the form which receives its name for its resemblance to a bruise or the effects of a blow.

Dr. Horace Green read the following paper :—

Some time since I made a brief allusion before the society to the case of a clerical gentleman, who accidentally fell from the platform of a R. R. car, as it was passing over a bridge, into the water below !

So singular was the effect produced upon his brain and nervous system, after the occurrence of the accident (the final result of which I have not until recently ascertained), that I have considered the case of sufficient interest to report it in full.

Several months ago the Rev. Mr. M., an intelligent clergyman from the north part of this State, left his home to travel by the Western Railroad to this city. While sitting in the cars, about nine o'clock in the evening, just before the train reached Utica, he felt, as he states, a slight degree of faintness, which he attributed to the confined air of the place, and leaving his seat, he stepped out upon the platform to breathe for a few moments the fresh air. This was the last he recollected, until he found himself struggling in deep water ! It seems that the train at this time was passing over the Mohawk River, near Whitesboro', at which place the stream is spanned by a skeleton bridge, and that losing his balance, or fainting, at this moment, Mr. M. fell headlong through the timbers of the bridge into the water below! This "Hydropathic" dose, thus suddenly administered, brought him to "himself again," and being a good swimmer, after floundering in the water a moment, he swam to shore, whilst his companions in the cars, unconscious of his fate, passed on, for he was not missed, as in the dark no one had witnessed his sommerset. On looking about he saw, at some distance, a light, which he followed, and found a house, where he obtained some dry clothes, and remained for the night.

On the following day he took the first train of cars that passed, and came on to Troy, where he found his baggage—which had been retained for an owner—and the same night came down the river to this city. When he arrived in New York, he found one of his limbs—which had been considerably bruised against the timber, as he fell through the bridge—swollen and highly inflamed. But besides this, although he had given, on his first arrival, a correct and full history of the accident that occurred to him, to his friends, where he stopped in the city, yet they found, a few hours afterwards, that he was losing the power to express his ideas in a connected manner. Under these circumstances I was requested to see him. I found him laboring under considerable excitement; his leg was inflamed, swollen, and painful. But the peculiar symptom in his case was his utter inability to express correctly a single idea. He knew perfectly well what he desired to say; the idea was clear in his own mind, and he had command of *words*, but *no power to arrange them* so as to convey any sense to the hearer. A pen and paper were given him, and he wrote *words*, but they had no connection, nor could anything be inferred from them; and he himself could discover at once that they were without meaning. He was bled freely, active cathartics were administered, and measures taken to reduce the inflammation in the injured limb. In this we were successful, but his other difficulties seemed to increase, for the next day he was unable to speak at all, and in this condition he remained for several days. He appeared to comprehend fully whatever was said to him, and in fact he manifested throughout the whole no other sign of mental aberration, but this inability to express ideas in words.

In about a week from the occurrence of this loss of speech—or, rather, a loss of the power of conversation,—he began to frame short sentences, so that he could be understood; and these sentences were very much like those made by young children, in their first attempts to connect words together:—as for instance, when I inquired of him, on calling about this time, how his health was? he replied, speaking very slowly, "much feel better thank you to-day," and for several days all his sentences were more or less transposed in this way. In the course of another week, however, he was so far recovered, as to be able to converse in a very connected manner. But it was several months after the occurrence of this singular accident, before the derangement it produced upon his nervous system had passed entirely away.

Dr. S. Conant Foster reported the following case:

Catharine F., a stout, healthy looking Irish girl, on embarking at Liverpool, was accidentally pushed into the water, and very much frightened. Shortly after she was taken out, she was attacked with a hiccough which lasted a fortnight, and was then relieved. She had no return till about six weeks after, when within about a week's sail of New York.

This was about six weeks before she applied at the Dispensary. She stated that she had not a moment's relief in the whole of that time, having been almost entirely deprived of sleep. She had been under the care of two or three physicians, and had been bled and taken a great variety of remedies. One of the physicians of the Dispensary had her bled a second time, and gave her opium and asafœtida in pills, and applied some counter-irritation by means of small camphor moxas along the cervical and dorsal vertebræ (where there was considerable tenderness on pressure). He also administered an emetic, which gave slight temporary relief, and put her upon the use of strychnia. After giving a fair trial to this latter remedy, on the 1st of Sept. I applied the croton oil to the spine and epigastrium, having first tried a dose of hydrocyanic acid without effect, and made pressure upon the epigastrium, which increased the singultus. Sept. 2. Repeated croton oil externally and gave it internally—producing a full eruption and very free purgation, but no relief. Sept. 3. Croton oil was again administered with same result. Sept. 4. Gave sulphate of morphine in doses of one quarter of a grain every half hour. Next day she appeared considerably relieved. Had taken the whole quantity of morphine allowed her, viz. two grains, in the doses directed, which had not produced sleep or any narcotic symptoms. As the hiccough still continued, though in less degree, I again gave her the same quantity of morphine, directing her to commence taking it in the evening. She again took the whole eight doses, the last one being followed by a cessation of the symptoms. No unpleasant effect followed, except a slight headache, which soon passed off.

Dr. Foster also mentioned a case in which cupping the temples had been followed by conjunctivitis. The case was one of amaurosis accompanied by congestion of the retina, and every time the cups were applied the conjunctivitis followed, to such an extent that it became necessary to use astringent washes. At the same time, considerable improvement took place in the sight.

To be Continued.

Art. X.—*On the Influence of Malaria and Malarial Diseases.* By A. G. Lawton, M. D., of Marshall, Saline County, Mississippi. Communicated in a letter to the Editor.

When we survey the past history of this country, from its first discovery up to the present time, we find that this invisible and mysterious agent, called *Malaria*, has been more widely disseminated, more pervading in its influence, and more efficient in the causatives of diseases and death, than all other causes combined.

It was the remark of the celebrated Volney, when travelling in this country, that every valley in America produced malarial fevers; and, although this observation is far from holding true at the present day, yet there has been a time when it would be strictly just, when understood in the broad sense, which it was originally designed to convey. According to Maccullock, one half, at least, of human mortality is owing to this cause. He says:—" At Walcheren, we lost 10,000 men, and the Antwerp fleet to boot. And when the French army attempted Naples in 1528, out of an army of 28,000 men, 24,000 died in a few days by choosing an injudicious encampment at Baix."

All past history goes to show the deadly influence of this invisible poison; and how it has occasioned the loss of armies—the failure of expeditions—the frustrations of plans and national movements—the depopulation of countries, towns and cities—cities that were once populous and powerful, where now the atmosphere is so pestilential, that it is dangerous even to visit the spot where they stood.

In 1610, the colony of Virginia consisted of nearly 500 persons, but in consequence of want of food and malaria, at the end of six months, only sixty of the whole number remained.

The early settlers of new countries suffer more from malaria than those of older countries. When the Spaniards settled Cuba, and the other W. India islands, great multitudes fell victims to miasmal fevers. Saludal exhalations are often prevalent, and the cause of fevers where they are not suspected. For example, during December and January last, I attended six cases of fever, of a malignant and typhoid character, in one family who lived on a high, dry, and hitherto healthy spot in Saline county, Mississippi. I regarded the fever as one produced by a specific cause; and, after searching in vain in and around the house, I suspected it might be under the house, the floor being of loose boards, between which were wide cracks, as is common in this country. I raised a board, and sure enough there it was. The house, which was of logs, was built on the grass, the floor being about 12 inches from the ground, and this space was filled with old bones, grass, crumbs of bread, dirt and sweepings, that had been accumulating for eight or ten years, forming a mass altogether about one foot deep. And this had been kept constantly wet by wash water, and heated by fire in the room, on which floor a large family slept and ate. And this mass under the floor, in contact with the decaying house-logs, on the ground, formed a perfect hot bed, just fit for the extrication of poisonous effluvia, which are more effectual in cold weather, because the house is more constantly shut and a hot fire in the room.

Often have I seen whole families die off in a few days, and the population of neighborhoods generally thinned, when a timely knowledge of the true cause might have saved them all. In Holmes county, Mississippi, on the banks of a small stream, on one farm, in 1836, forty negroes and a whole white family, except the father, died in three months, leaving but one living soul on the place. And I am acquainted with many instances of a similar kind in Michigan, Illinois, Missouri (in this county), in Louisiana, Texas, and many other places.

According to authors, the circumstances calculated to generate miasmatic exhalations or malaria, are the ploughing of lands for the first time. They are also developed by the action of water on wood in casks at sea, bilge water in holds of ships, marshes, stagnant pools, moist meadow lands, etc. A mixture of salt and fresh water in pools or marshes, the drying up of lands that have been inundated, also give origin to this poisonous agent. Ploughing the western prairies, for the first time, is generally followed by more or less sickness.

The following are the results of my observations made in a small part of Saline county, Mississippi: Of *one hundred and five* families, who have settled here from 1836 to 1843, *fifty-five* ploughed fields on the *south* and *east* of their houses; these had fevers, bilious remitting, or intermitting, or some other disease. During the first, second, and third years, indeed, scarcely one of them escaped some kind of sickness. *Sixteen* of them ploughed fields on the *west* of the houses; of these, many had intermitting, some few bilious remitting fevers, but of a tractable character, and generally on the second or third years. *Eighteen* ploughed fields on the north, and but a few of these had intermitting fevers, and these during the second or third years. *Sixteen* did not plough around their houses at all, and none had any of these kinds of sicknesses, more than might be expected in any healthy country.

It takes the sod two and three years to rot, and it generates malaria every year, until it is well rotted. Log houses built on the ground, as soon as the logs begin to decay, especially if they have no cellars under them, produce an immense amount of the poison in question. And where they have loose floors, as the poorer class generally do in these countries, two-thirds of everything that falls on the floor is swept through. This accumulates by slow degrees, and is wet three or four times a week, by wash-water on the floor, until it forms a perfect hot-bed, just fit for the generation of poisonous exhalations.

And these houses have no windows, nor means of ventilation but the door, which is constantly kept open for light to come in, except in the coldest weather of winter. Then is the time for this putrefying mass under the floor, and the rotting house-logs, always moist and hot by fire in the room, to generate fevers of the most malignant character and grade. The malignancy and awful fatality of these fevers are well known to practitioners of these countries. I see no reason why these very causes would not produce a genuine typhus.

Maccullock says, that a remittent will become, or perhaps produce, in any given individual, a contagious *typhus* under confinement.

But I think the most, if not all these cases, may be traced to a combination of the two poisons, animal and vegetable exhalation, and these cases generally occur in, or immediately after, very cold weather.

There is a stream running through our county, called the Salt Fork, the head of which is a salt spring, large enough to turn a mill a half-mile below its source, in which I am told a lead has been dropped 300 feet without finding bottom. This stream has many other salt springs running into it in its course. It is a mixture of mineral salt and fresh water, and a beautiful clear and running stream. As far back as I can trace, the people living on the banks of this stream have suffered with fevers every year, and with many other diseases; sometimes the greater part of the population are sick. But for three years past, it has been more than common sickly. In my practice on this stream last season (1835), out of a population of 63 persons, there were 56 cases of fever, mostly bilious remitting. Of these none died. Malarial diseases are often masked; it is difficult to discern their true type and character; the fever being low, and sometimes wanting. According to authors, malaria induces, or produces,—fever, neuralgia, dysentery, cholera, tic-douloureux, or headache, &c., &c.—*M'Cullock.* But I would not stop here, but would include congestion, inflammation of the uterus, assimilating cancer, and cured by *iodine*, hypertrophy of the liver and spleen, chronic diseases of the mesenteric glands, anasarca, &c.; also includes a tendency to venous congestion, imbecility both of body and mind: especially in those who live on improper or scanty food, in old, decaying houses, without windows or proper means of lighting and ventilating, abortion, flooding, ovarian dropsy, &c., &c.*

I was recently called to see a young man in the family of J. G., on the 9th day of fever. When I arrived at the house there were three more persons down with the same fever, which was of a typhoid grade. On the next day when I arrived at the house, I was much surprised to find three more boys, still younger, down, which made in all seven cases. They all got well except the one I was first called to see, Oct. 22. He died on the thirteenth day; had black sordes on the teeth, bleeding from the nose and gums, and delirium.

On inquiry, I found the facts to be as follows: A year or two ago they had built a brick house, under the wing of which was a cellar, in which water had stood for the last eighteen months, open on the south by a door and window. Some weeks ago these boys had dipped out this water and mixed brick with it in hot weather, and it had a very bad smell. The oldest, who died, was the most exposed; he moulded the brick, and stood on the wind side of the bed where the brick was drying.

It appears that these boys took the fever one after the other, as they were exposed, or according to the intensity of exposure to the exhalation in making and drying these brick. All that assisted in making and drying these brick, took the fever. The others were all well and hearty, and had no sickness that year worth mentioning.

This is one of the many instances of the kind I have witnessed. I will now offer a few remarks on *symptoms*, but they will generally be confined to the sickness on the two streams, the Salt Fork, and a tributary of Blackwater. Both are salt water in part.

These streams often overflow their banks, and spread over grassy bottom land. This generally happens in June or July, after which it is generally sickly.

After exposure to miasmal exhalations, for a longer or shorter time, it may be a week, three weeks, or three months, depending on other existing causes, or the constitution of the patient, the signs of disease appear. The first thing noticed will be, after a hard day's work, getting wet, going without dinner, or eating too much, exposure to hot sun, &c. On the next day, unexpectedly, and without any ostensible cause at the time, the person feels an unaccountable weakness in the back and legs, slight aching in the head, eyes and stomach, accompanied with a little coldness of the fingers; drowsy, dull, and listless; sometimes he expe-

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*While on a recent visit to a part of New England, remarkable for health, we became acquainted with an instance which illustrates very strongly the influence of malaria, when of not sufficient intensity to cause regular paroxysms of fever. A family of seven persons, old and young, lived in a house, in the cellar of which was a large quantity of decaying vegetables, partially covered with water, which stood upon the bottom of the cellar to the depth of nearly six inches. The family, though not confined to their beds, were, nevertheless, all so indisposed as to be almost wholly unable to attend to their ordinary duties. The most prominent symptoms, and which existed in every individual of the family, were nausea, want of appetite, furred tongue, bad taste in the mouth in the morning, muscular debility and prostration, universal malaise, headache, pain in the spinal cord, shooting pains in different parts of the body, depression of spirits, languid, sluggish circulation, torpor of the surface, and all the secretions, irregularity of bowels, etc. These symptoms existed for several weeks before the cause was discovered, and without resorting to any other measures than removing the cause, draining the cellar and cleaning it out, they all soon recovered their usual health. Such facts certainly ought to convince those who are still sceptical as to the existence of any such agent as malaria.—*Ed. N. Y. Jour. Med.*

riences a slight trembling: after a few hours it goes off and he thinks no more about it, until it comes again, which will be on the next day, or odd day, at the same hour, which is generally in the fore part of the day; but it may occur at any stated hour. This may continue for a week or more, getting better and worse. After a while he finds himself unable to attend to business, and concludes to doctor; he takes a heavy dose of Cook's pills, or some other drastic purge, after which he gets a hard ague chill, or finds out that he has an attack of fever, of which he may get well in a few days. This is the beginning of the mildest cases. They get well, but being constantly exposed to the original cause, they soon get down again.

At a certain time of day they will have great weakness, blindness, or throbbing in the head, palpitation of the heart, feet and hands swell every afternoon. They will take a pain in or over one eye, or over one side of the head (this they call sun pain); the eye inflaming, is red and painful, with the fever on that side of the head; after three or four hours it goes off, to be renewed on the next day or odd day. But sometimes the pain and fever are more severe, rising with the sun and going off as the sun goes down, and they sleep well as usual at night. And in the same way, occur sick-headache, neuralgia, toothache, and vomiting. I have seen vomiting occur at ten o'clock for a week, every day, often mixed with blood. But sometimes weakness is the only symptom, and this increases for weeks with a tolerable appetite all the time.

As the season advances, the attacks are more violent and sudden, the fever gets stronger as the cold weather approaches, when many of the cases become strong and bilious fever, or they will take a chill that will prostrate them at once, and the fever rises high, or the fever may fail to come at all; if so, the exterior assumes a bloodless appearance. There is more or less congestion, sometimes complete if the congestion is partial; there may be vomiting, sometimes, of blood. In females, vomiting matter, tinged with blood and flooding at the same time, especially about, or at the turn of life. In girls the disease is ushered in, many times, by uterine irregularities or uterine flux. Vomiting blood is a common occurrence in many grades of these fevers. Congestion may take place in the first chill, but more commonly in the second; it is often brought on by overpurging, after which there is no fever, for that is the end of the race; they either die or get well,—that is, when congestion takes place suddenly and extensively.

Congestion may take place in the lungs, spleen, liver, bowels, and sometimes in the head, but not often. In congestion of the lungs, the veins of the extremities assume a dark color, and sometimes black; respiration short and oppressed, and a feeling of great weight across the chest; the pulse gets weaker as congestion becomes more established, until it is finally lost; the skin on the extremities assumes a leaden hue; cold perspiration oftentimes is extreme; cold feet and hands, and the patient complains of nothing but heat. There is congestion of the bowels, liver and spleen, and this is by far the worst complication; the pulse sinks, the extremities grow cold; as the cold advances the skin assumes a bluish cast, or leaden hue, and dimpled like goose-flesh; the tongue may be dry and clean, or a little furred, or it may be coated thick and dark, if the fever has run a number of days before congestion took place; the respiration is short and oppressed; there is great weight and heat across the stomach and bowels;

cold perspiration, and sometimes delirium. In fatal cases the perspiration is excessive, the skin becomes relaxed and cold; the patient is restless and constantly changing from one position to another, often complaining. Ask him what pains him, he will say, nothing, no pain, but so hot, and yet he is of an icy coldness everywhere but on the stomach and bowels, which are very hot. As death approaches he becomes more composed and tranquil, and dislikes going to sleep. Congestion may take place any time in the course of a fever, especially on the ninth day, but always on the day and hour according to the manner and type of the fever.

As to the treatment of malarial fevers all agree that QUININE is an antidote, or a specific, some give it in large doses, some in small, and both are mostly fortunate. I have given it in all ways, and I am fully convinced that one grain of quinine, combined with other substances, will effect more than five will by itself. Three years ago I adopted a plan of combining it in a manner that I never yet have had cause to change. The combination has two advantages. One is, it is more effectual, safer, and leaves the system in a better condition; the other is a great saving of the article. In intermittent and all mild malarial fevers, I give a purge if it is needed, generally a mild one, as blue mass, ten grains of calomel, with Dover's powders, or Lee's pills, according to the circumstances of the case. Then I give the following powders, changing them to meet the indications as near as possible. I never bleed in these cases in the warm season, and very seldom in the winter, for bleeding is very apt *to induce congestion.* The constituent principles of these powders may be increased or lessened according to the circumstances of particular cases.

℞	Quinæ Sulphate,	gr. i.,	or	Quinæ Sulphate,	gr. ij.
	Camphor Pulv.,	gr. i.,	"	Camphor Pulv.,	gr.
	Pulv. Doveri,	gr. ij.,	"	Carbonate Ammonia,	gr. ij.
	Fiat Pulvis.		"	Fiat Pulvis.	

℞	Quiniæ	gr. ij.,	or	Quinæ,	gr. i.,	or	Quinæ,	gr. ij.
	Camphor,	gr. ij.,	"	Camphor,	gr. i.,	"	Camphor,	gr. ij.
	Myrrh,	gr. ij.,	"	Capsic.	gr. ij.	"	Morphine,	gr. 1-8.
	G. Opii,	gr. 1-4,	"	Opii	gr. 1-4,	"	Ferri Carbonas,	gr. ij.
		Mx.			Mx.			Mx.

In intermittent fever, I begin with these powders soon after the fever begins to go off, and give one every two hours until six or twelve are taken, according to the type of fever. Then if needed, I give one or two pills at night, made of aloes, soap, and rhubarb, and the next day give the powders as before; and I seldom have to leave medicine but once for these cases. In bilious remitting fever, I generally lessen these powders, beginning early in the morning, and give four, five, or six of these powders through the day, with directions to stop when the fever gets high, give a dose of calomel at night, and nothing more till morning, when I commence on the powders again.

In those cases where the fever runs high, I give calomel, or blue mass, every other night, or every night until the biliary secretion is established, when other purgatives are stopped, and I continue the powders, and sometimes the above named pills at night. In the most of these cases there is much visceral irritation, and here blisters and counter-irritants of mustard must be used. Sometimes there is excessive vomiting in these cases, when I find nothing better than what has been long in use, that is, a mustard plaster over the stomach, and sometimes around the ankles and wrists. With this treatment I have been so far very fortunate, and seldom lose a patient. In winter fevers I increase the Dover powder, and lessen the other parts in these powders, and the effect has been perfectly satisfactory.

Pills containing camphor I keep corked up in vials, and make but few at a time. Thus kept I think the camphor is retained sufficiently for all practical purposes.

ART. XI.—*Case of Idiopathic Tetanus, treated successfully by Strychnine.* By EDWARD VANDERPOOL, M.D., of New York.

New York, 13*th October*, 1846.—Was requested to see Mr. B., aged 58 years, segar merchant. Just one month ago he thought he took cold from sitting in front of his store evenings, from a chilliness creeping up the sides of his face, which continued for several days. This was followed by a sore feeling of the face, near the ears, and inability to extend the jaws, with a difficulty of swallowing. About this time, he commenced to fall backwards when walking, which he would do every few days, from a sudden spasmodic opisthotonos attack. Two days ago he fell suddenly, in the same way, through the lower half of a window, breaking out both the sash and the glass, but without injury to himself.

I found him with Tetanic expression of countenance, permanent rigidity of the masseter and temporal muscles, jaws nearly closed—could only show the edge of the tongue at its tip, which was much bitten, by being caught between his teeth whilst dozing—is frequently drawn or, if standing, thrown backwards by spasmodic action of the muscles of the back. Bowels soluble. Pulse eighty, and soft. Has taken several cathartic doses of calomel since he felt unwell, and "a number of sweats." Prescribed strychnine in solu., $\frac{1}{16}$ grain every two hours.

14th October.—Doctor Fell happening to call on me, I invited him to see the patient. 10 o'clock A.M.—Took only three doses yesterday and one this morning. Found him with a handkerchief tied around his waist from bad feeling in the region of the diaphragm—produced, as he supposed, by a fall an hour before—rigidity of the jaws about the same; his teeth are worn off, to appearance one eighth of an inch—thus allowing for the distance he can open his mouth. Spasms more frequent; takes fluid nourishment well. Bowels have moved. R Stryc., $\frac{1}{14}$ grain every two hours. 7 o'clock P.M.—Jaws have yielded a little, but spasms have been very frequent. R. Stryc. $\frac{1}{12}$ grain every two hours.

15th Oct., 9 o'clock A.M.—Patient has had a bad night. It required two men to lift him in the bed; he thought his back would break from the rigidity. Could not remain in the recumbent posture, from the greater frequency of the spasms. Missed his medicine only once, from having fallen asleep. Says he feels well, but weak. Spasms are milder this morning. Jaws more relaxed; can introduce his fingers between his teeth, and had just swallowed a raw egg without beating. R. Continue $\frac{1}{12}$ gr. strych., and wine *ad libitum*, and generous diet.

7 o'clock P.M.—Opens his mouth wider. "Can speak, swallow and spit with more ease." Relishes his food, and has taken only a half gill of the wine. R. Continue the prescription.

16th Oct., 9½ o'clock, A.M.—At 11 o'clock last evening patient discontinued his medicine, undressed himself and went to bed, for the first time since under treatment. His sleep was frequently interrupted by the spasms. At 7 o'clock this morning resumed the strychnine, which immediately produced its specific effects. Opens his mouth about the same as last evening, and can protrude his tongue an inch and a quarter. Pulse seventy-six, and soft. As he lies in the bed with his knees gently drawn forward, his spasms cease. Bowels have not moved in three days. R. Ol. Ricini ℥ss. ol. Tiglii gtt. j. M. 8 o'clock P.M.—Patient says he feels twenty per cent. better every way. Jaws more relaxed; articulates easier; uses his mouth more freely; has had only two or three very slight spasms; pulse eighty; oil operated gently. Has taken beefsteak, &c. Continue the prescription.

17th Oct., 9½ o'clock, A.M.—Patient improving. Says he went to bed alone, and much easier, and rested better than the night before. Had very few spasms; omitted his medicine from 12 to 6 o'clock. Feels much better and stronger; sits erect; has walked around the room and into another; opens his mouth wider; protrudes his tongue to the full extent; complains of nothing but the uncomfortable feeling about his jaws. R. Continue the strych. 7 o'clock, P.M.—Has slept two and a half hours; had a few slight spasms, otherwise same as in the morning. R. $\frac{1}{20}$ gr. every two hours.

18th Oct., 11 o'clock A.M.—No particular improvement. A few spasms through the night. Had a bad fall when walking this morning, which cut his scalp badly.

Monday, 19th Oct., 10 o'clock, A.M.—Says he has had a passable night—best yet—very few spasms; general improvement. Has taken beefsteak and coffee. Seems almost well.

20th Oct.—Patient convalescent.

21st Oct., 11 o'clock, A.M.—Continues to do well, and has gained considerably since yesterday.

22d Oct.—Patient discharged cured.

The above, as far as I can ascertain, was a case of Idiopathic Tetanus, which—together with the other two of a Traumatic character, Miss McC. and Mrs. A., published in your last number, with those of Dr. Fell, and cured with strychnine—encourage me to believe that this most awful malady may be controlled, and made subject to the remedial powers of this wonderful medicine.

Within the last two years, two other cases have occurred in my practice. The lamented young S. Fox, aged 19 years, from an injury whilst bathing, died the fifth day; having been treated with Tart. Ant., Asafœt., Laudanum and Brandy. The other, a colored woman, two months subsequent to young Fox, recovered. Both were Traumatic Tetanus. The woman had the Opisthotonos form, permanent rigidity, with occasional spasmodic aggravations—especially of the diaphragm—which caused excruciating suffering. The fifth day, her jaws having become firmly closed, I concluded to take the responsibility and bleed her to the extent of a large wash-bason full, when her jaws yielded a little—say ⅜ths of an inch—and this state of things I endeavored to maintain by Tart. Ant. She took four grs. in solution every hour and every other hour for two days without producing emesis, when, for fear of inflammation of the stomach, I suspended its use. Her convalescence was very slow, but her health has been good since.

N. Y., Oct. 20th, 1846.

P. S. Strychnine will not dissolve in water or alcohol. A good way is to add ʒj Acetic acid to ʒvij. aq., which will make a clear solution.

ART. XII.—*Remarks on Inorganic Matters in Vegetable Products.* By ISACHAR COZZENS, Esq. (Read before the American Association of Geologists and Naturalists, Sept. 2, 1846.)

TO THE ASSOCIATION OF AMERICAN GEOLOGISTS AND NATURALISTS.

GENTLEMEN,—Having always been an attentive observer of things, it was not out of my way to discern that there was a considerable quantity of real earthy matter, and that of extreme fineness, in what is called rock or leaf-mould, which lies in our forests, and which is a product from decaying vegetable substances. That this earthy matter was originally in the leaves and wood which produces this mould, there is no doubt; it is in such extreme division as to be thought, not the result of a mechanical operation, but on the contrary, it was more probably carried up in the sap, which nourished the plants, and this is now the product which was once the component part of the plants. For it is to be supposed, that if all the compounds of the vegetable kingdom, viz.: carbon, oxygen, hydrogen and nitrogen, were dissipated by the long process of decay or rotting, they would leave the earthy matter only, which is not destructible, and which is not discernible, until decay takes place; and when we know that by the destructive process of incineration, we obtain the earth contained in the plant, we can suppose that the same result would follow by the long process of decay; from hence we may reason that the very large quantities of fine earthy matter, which is on the top of the diluvium (or drift, as it is called by some), and is now found in the mould, has passed up with the sap of the plants, by vegetable action, in a state of solution in their juices, and again precipitated and deposited as the plants decayed. In my opinion, all the finer particles of earth have not become so (as is generally supposed) by mechanical means, such as trituration, and the grinding of one particle against another; for it is well known to chemists, that a much finer powder can be made by solution and precipitation (and with greater facility) than by the mechanical way of grinding. This fine earthy matter (which may be called Tara-albuma, or the earth of the sap of plants) is found in its pure state all over our forest grounds (where the wood has not been cut off, or the land tilled), in a much larger proportion, as it seems, than in old tilled fields, where the diluvium has been turned up with the plough, and consequently mixed with it.

It is said, that half-decayed wood, peat, bituminous coal, and anthracite, give little or no potash; why should they? They have undergone a decomposition, they have lost the natural acids, which held the alkali in a neutral state in the living plant. Yet all these semi-mineralized products give, when burned, a large product of fine ashes; which, there is no doubt, was at one time carried up in the sap, which nourished the plants which produced them. It must be admitted, that potash is essential to plants in neutralizing the acids, and also for the purpose of dissolving the siliceous earth which goes into the compound of the sap, while their natural acids neutralize the alkaline earths.

It may be asked, what has become of the alkali which was in the plants that formed the coal, &c.? It must have been set free, and formed other compounds, having found something that had an affinity for it, as silex, when in wet situations, and as nitric acid, in dry ones. Saltpetre earth, which contains a certain quantity of potash, is common in many of our dry caverns west of the Alleghany mountains.

In mineral coal we find some of the sulphurets, and carbureted and sulphureted hydrogen gas; products by decomposition of vegetable matter. I do not say that all the earthy matter, left after the burning of coal and peat, is from the same source, for it is well understood that the rains and freshets wash down from the hills, continually, large quantities of their materials, coarse and fine, according to the water that falls, or to the exposure of the place to storms; but along with these freshets, also goes this fine earth, which has undergone a vegetable change to bring it to its fineness; and should it be carried on top of a peat-bog, it then mixes with the peat, and would become part of the ashes (or product) if the peat was burned. I was led to these conclusions while at Mr. Cooper's farm, near Bull's-ferry, N. J., in examining a peat-swamp, which is in a basin of greenstone or trap, on top of the palisadoes. This basin contains about 70 or 80 acres, and had the outlet so high in its natural state, and that over a ridge of rock, that the water stood a foot or more on it for six or seven months of the year, until Mr. C. deepened the outlet by blowing out the rock about four feet. This swamp was covered with a pretty thick growth of maple, gum, and an innumerable quantity of alders, and whortleberry brushes, with catbriars, brakes, ferns, poison sumach, &c.; all of which grew in the peat. Before it was drained, a pole could be thrust down by the hand in one place nine feet. After draining the swamp the surface of the peat was much lowered, the peat becoming more compact. Nearly all the border of the swamp was covered with the original woods; and the hills and grounds around it had never been ploughed. The water which ran from it through the outlet was of a coffee color, more or less of a dark brown; this showed that a large quantity of vegetable matter was carried away in solution from this basin by the water which fell annually in rain; may not the potash of the plants have been carried away in this water? The filling up of this basin with the dead vegetable matter which had fallen in, or was washed in (until it had at last reached the top), could only have commenced after the palisadoes were thrown up, and after the diluvium or drift was swept over it, and vegetation had commenced on the upper or last change of surface; for we find in its bottom all the members belonging to the diluvium, viz., boulders, coarse and fine, and small gravel and sand; on the top of which lies the vegetable ashes by decay. In digging in this swamp, you had first to clear away the peat, moss and roots; you then came to good peat, then to a stiff blue mud, composed of very fine siliceous earth and vegetable matter, which, when dried, turned to a light blue color, and crumbled to a fine powder when exposed to the frost and air; under this was a very fine siliceous earth, with very little or no vegetable matter, and of a quite light grey color, showing, as the vegetable matter had been washed out, the siliceous earth had taken its natural color; under all was the diluvinm or drift, which once swept over the regions we now inhabit.

These observations were made before Mr. Ehrenburgh had published his papers on Infusoria, and made known to the world the discovery of the organic relics of infusoria to be silex.

As I had undertaken an analysis of the soils on the farm, I was examining them with the microscope, and perceived particles which I believed to be organized matter, and which I then attributed to the little globules, veins and cells, that are formed in the general structure of plants, but which I have since supposed to be crystalline particles, as there is no doubt a crystallizing process going on in all earthy matter, which is in such fine division, as that of ashes from incineration or decay.

I do not think that the great quantities of this earth, with its position and the cause of its fineness, have been noticed by geologists as the subject demands. What I wish to establish by this paper is, that there is a very large proportion of the finest earth of our soil that has been produced by the plants themselves, by their carrying up the earth, in their sap, in the process of vegetation, while alive, and depositing it while undergoing decay and after life.

The great quantity of inorganic matter of vegetables, having so long escaped notice, is clear; for it is so mixed with organic matter that it cannot be seen when it is in leaf-mould or peat; and when it is in ploughed fields, it is so mixed up with the rest of the ingredients of the soil; besides, the only difference between this and common sandy earth is its fineness. That there is a vast deal of this earth produced in the forest, must be admitted; for by the burning of one cord of dry wood (the weight of which is about on an average 5088 lbs.) 127½ lbs. of ashes are produced.*

It is impossible to tell the quantity of wood, leaves, limbs and other vegetable matter which is constantly falling to the ground, and is exposed to decay in our forests; all these, giving up their ashes or inorganic matter, which was first taken from the rocks or their products. If we even allow that some of the earth is again taken up, in the food of the succeeding vegetation, it is not to be supposed that all of it is, but rather, that the plants would seek other and new supplies from other rocky matter which lies in their way. By a calculation which I have made from the ingredients of the palisades rock, it would take something over 1000 lbs. of rock to produce 1lb. of potash, so that the plants must be very industrious to obtain potash enough for their composition. The largest quantity of potash which rocks are said to contain is found in the Feldspar, some of which has over 8 per cent.; many rocks do not contain any, or a very trifling quantity, such as hornblende, which has only .5, while Augite has none at all. It is very probable that the new growth of plants would seek some other than the one used, or old ingredients, as they have a natural aptitude in seeking out their food, a disposition something like instinct in animals, only in a much lower degree, by which they are directed to seek for that kind of mineral matter which would best suit their economy of growth. I saw a singular instance of this, as long ago as 1808, at which time I visited a place called Queensbury Furnace, which is situated in the mountains of the Highlands of the Hudson, back of old Fort Montgomery; after landing at the old fort, we passed along the road which leads through the valley of Fort Montgomery Creek, about three miles to the place above named; on arriving, there is to be seen on the right, a huge stone building (which was the smelting furnace) standing partly in the bank in a sidehill; between this furnace and the road is a plain or plat of ground, of about 100 feet square, where had once stood a wooden building (then gone). The tap-hole of the furnace was at this side; this huge stone smelting furnace was, at its base, from 40 to 50 feet square; it was 20 to 25 feet high, and at the top about 30 feet square, making the outside have a somewhat pyramidal form, with a flat top, the stones of the wall being laid battering (as masons call it) from their base upwards. This furnace had, in the centre of its top, a hole of about five feet or a little more, for the purpose of charging it, when in blast, with the ore and charcoal consumed in the process of smelting; this opening answered also for a chimney. There was a road, some thirty or forty yards long, in the rear of the furnace, running down along the sidehill until it met the main road, for the purpose of drawing up to a level with its top, the materials for feeding the furnace. On the top, and around about the opening, lay a considerable quantity of charcoal (in powder) which had lain there ever since the furnace was in blast; this was mixed with sand and other earth, and covered with dead sod. On the front side of the top, which was the highest from the ground (and below which stood the shed under which the metal was drawn from the furnace to cast the pigs) stood a white-wood tree (the Lirioderdon tulipifera) which measured from the top of the furnace to the top of its leaves, about 16 or 20 feet. The roots of this tree had run through the crevices of the stone of which the furnace was built; one of these (the largest) had reached the ground, running through and down the outside of the wall, showing an aptitude to seek a place for more moisture and food than it could find at the top. This tree was, no doubt, a seedling, and had come up from some seed which had been blown from the forest around, and which had lodged in one of the cracks of the furnace. Should this tree grow to a large size, and afterwards fall by the wind, or become top-heavy, the roots will probably rend the stone-wall of the furnace, and throw the stones up and around about it.

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* By a careful examination of 20 different plants, or vegetable products, when submitted to incineration, it was shown that the average quantity of ashes, or inorganic matter, was, in 100 parts, 2½ only of the whole. Some plants, and parts of plants, yielding more than others; for instance, hay, wheat straw, and leaves of trees, yield from 6 to 10 per cent.; the grain of wheat 10.30 per cent., while from 100 parts of the wood of the oak, pine, elm, and beach, but 1.9 per cent. down to 0.20.—See Chapin's "Hand Book of Plants" and Chaptal's Chemistry.

On the subject of "the removal of boulders," and their being kept above the surface, I have made some observations which I should be pleased to communicate.

The roots of trees, in stony grounds, seek their way between the stones, and in many instances, wind themselves about large boulders, so that if the tree is blown down by the wind, or falls by being top-heavy (which is sometimes the case), and if there should be at such time any boulder entangled in the root, which is higher than the top of the tree, it is sure to be thrown up from the surface. While I was at Mr. Cooper's farm, I saw there more than twenty instances of this fact, the boulders varying in weight from 100 to 1000 lbs.; they had been brought above the surface of the ground from three to six feet. By this process, there is now one of these disturbed stones (a Greenstone boulder) on the south side of his farm-line, in Mr. Veeland's woods, which measures about 15 cubic feet; so taking the specific gravity at 3.32, the weight will be about 3112 lbs. This is still entangled in the roots of the large oak which threw it up, nearly six feet above the surface.* This may account for, and is probably the cause, in some measure, of so many boulders being found on the surface, in what is called rocky ground; but this is one or a partial cause, and only holds good in some districts.

Trees have another effect on rocks; they send their roots between the smallest cracks, and by this means, act as a wedge while growing, which opens the cracks so as to let in the water that comes down as rain or snow, and which freezes in cold climates, and splits the rock further, so that pieces fall down when this takes place on the side of a cliff of hills or mountains. This holds good from the largest down to the smallest of all plants; for about twenty-five years after the City Hall, in New York, was built, the moss had collected on the white Limestone rock or Stockbridge marble, of which it is built, and had penetrated its roots more than an eighth of an inch deep from the surface; so that it was requisite to use diluted sulphuric acid to wash the building in a number of places, where the white marble had become of a grey color. The roots of the moss could be plainly seen with a microscope, or even with the naked eye.

Trees, also, break up the top of rocks that are seamy; as is shown on a Limestone bed of rock which I saw in Put-in-bay Island, when I was there in 1831. The top of this Limestone rock was so pried apart, and made so small, by this means, that the lime-burners had nothing to do but pick up the fragments of Limestone from among the roots and carry them to the kilns.

By the above facts, and the inferences drawn, I think I have accounted for the large quantities of earthy matter in such extreme division that is found in all parts of the surface of the globe, and intermixed with the surface, and also for the position of many boulders on the surface.

The following experiments were made to ascertain the quantity of inorganic matter in the following vegetable products, to prove the theory of the principles laid down in this paper:—

No. 1. *Experiment* 1*st.*—Old rotten oak-wood—so far decayed that, when dried, it might all be rubbed as fine as snuff, between the fingers—from Col. J. V——'s woodland, near Bull's Ferry, N. J. 875 grains of this, after drying, were submitted to incineration, the product of which was 37 grs. or about 23.646 per cent. of ashes. Microscopic examination—nothing organic.

No. 2. *Ex.* 2*d.*—Rock-mould, taken from the side and top of a rock in Col. J. V——'s woods; this was a pure virgin mould, from decayed leaves and other vegetable substances that had fallen on the rock, from the longest time imaginable. 400 grains of this dried mould was submitted to incineration, and produced 177 grains of ashes, or 44.4 per cent. Microscopic examination—Inorganic, and mostly crystalline traces of woody fibre.

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* Since writing the above, I have visited the place, and find the smaller roots are mostly rotted away; but still the boulder lies imbedded on the top of the stump, elevated about four or five feet.

No. 3. *Ex.* 3*d.*—680 grains of wood mould, virgin mould, or super soil of woodland, taken from J. C——'s land, submitted as before; product of inorganic matter 317 grains, or 46 per cent. of ashes. Microscopic examination—same as No. 2.

No. 4. *Ex.* 4*th.*—Second layer of Cooper's swamp. 300 grains of dried peat, treated as before, gave 31 grs. of ashes. Microscopic examination—organic, vegetable debris.

In all the four above experiments, Ammonia was thrown off, and could be plainly smelled after the smoke was gone, towards the end of the process.

No. 5. *Ex.* 5*th.*—The third layer of W. C——'s swamp—sub-peat, or peat-clay—400 grains was submitted to a red-heat, to burn out the vegetable matter; the organic matter obtained was 309 grains. Microscopic examination—inorganic.

No. 6. *Ex.* 6*th.*—Fourth layer of W. C——'s swamp—a very fine earthy matter, with but a small proportion of vegetable matter—this was washed with water, and a few fibres of roots strained off through a piece of bolting-cloth.—Inorganic.

No. 7. *Ex.* 7*th.*—Fifth layer. The product of this was the same as Ex. 6th, only it contained some of the sand and gravel of the diluvium or drift which lies below.

No. 8. *Ex.* 8*th.*—The diluvium or drift, washed, contained sand, gravel, &c.

No. 9.—Ashes from peat, burnt at swamp. Microscopic examination—mostly inorganic; some infusoria.

ART. XIII.—*Insanity, in its Coincidence with Age.* By PLINY EARLE, M. D., Physician to the Bloomingdale Asylum for the Insane.

AT what period in human life is there the greatest liability to insanity? This proposition is not devoid of interest, both to the medical and the general searcher after truth; and inquiries directed towards its solution may eventually result in some practical benefit. Neither extensive professional knowledge, nor uncommon acuteness of observation, is necessary to the development of the general facts that in early life, and particularly before puberty, mental disorders are comparatively rare; that during the active period of manhood, when the intellectual and moral faculties are in their utmost vigor, when the appetites and the passions are the most defiant of control, and all the greatest obstacles in a world of strife are to be contended with, these disorders are most frequent; and that in old age, when the many struggles of life are past, when the goal of early ambition is won, or the hopes of its attainment relinquished, when appetite has become obtuse, passion more gentle, and opinions fixed, they again become comparatively few.

To this general assertion many of the writers upon mental alienation, as for example, Millingen,* Conolly,† Andrew Combe,‡ Dubuisson,§

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* Aphorisms on the Treatment and Management of the Insane, p. 66. London. 1840.

† An Inquiry concerning the Indications of Insanity, &c., p. 281. London. 1830.

‡ Observations on Mental Derangement, &c., p. 141. Edinburgh. 1831.

§ Des Vésanies, ou Maladies Mentales, p. 26. Paris. 1816.

Falret,[*] Voisin,[†] and Fodéré,[‡] confine themselves. M. Voisin demonstrates the truth of the assertion by the tables of Haslam, Pinel, Esquirol, and Fodéré, which he quotes. Fodéré also copies the tables of Pinel and Esquirol, together with the statistics of York Retreat, as published in the Bibliotheca Britannica, Lib. lix., p. 240.

Some other authors, however, more particularly specify the boundaries of that period of life during which the maximum number of persons are attacked with insanity; yet those boundaries are made so remote, each from the other, the included domain of life is so broad, that the knowledge imparted by them is scarcely less indefinite than that of the writers first mentioned.

Thus, Dr. Rush says, "There is a greater predisposition to madness between twenty and fifty, than in any of the previous or subsequent years of human life."[§] This proposition is based upon the statistics of Bethlehem Hospital, London, the Bicètre, Paris, from 1784 to 1793, inclusive, and those of Pennsylvania Hospital, in 1812.

"Insanity," says Dr. Wm. B. Neville, "is hardly known in infancy, and very rarely occurs after sixty years of age; between twenty and forty it is undoubtedly more frequent than at any other time."[||]

According to Dr. John Syer, "the majority of cases of insanity is observable within the periods of twenty-eight and forty-five years of age."[¶]

Dr. Joseph Guislain says, "It is from 20 to 35 years of age that the intellectual faculties of man are in the greatest vigor, and it is also at that period, particularly, that insanity is developed."[**]

To these authorities, may be added that of Sir Alexander Morison, who says that insanity "is most prevalent between the ages of 25 and 40."[††]

Finally, there are writers who have endeavored still farther to circumscribe the limits of the period most prolific of mental alienation. Among these is Esquirol, who was one of the first to employ statistics in his investigations of the subject. In 1816 he wrote as follows: "The age which furnishes the greatest number of insane is, with men, from 30 to 40 years, while with women, it is from 50 to 60."[‡‡]

These are inferences derived from 2638 cases treated at Bicètre, Salpêtrière, and Esquirol's private establishment.

In 1835, the same author, in giving the statistics of 1557 cases which were under his care at Charenton, says, "The maximum of admissions is from 30 to 35 years. The admissions of men were most numerous from 25 to 30 years, and of women, from 35 to 40."[§§]

Spurzheim, in the first edition of his treatise upon Insanity, says, "It attacks more persons between 20 and 30 years in France than in England."* But in the English translation of this work, a translation probably made from a later edition, the author is represented to hold the following language: "It has been observed that insanity, idiotism from birth excepted, is the most frequent, in England, between 30 and 40 years of age; in France, between 20 and 30."†

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[*] Considérations Genérales sur l'Aliénation Mentale, p. 42. Paris. 1843.

[†] Des Causes Morales et Physiques de l'Aliénation Mentale, p. 87. Paris. 1826.

[‡] Traité du Délire; appliqué à la Medicine, à la Morale, et à la Législation, p. 70. Paris. 1817.

[§] Medical Inquiries and Observations upon the Diseases of the Mind, p. 55. Philadelphia, 1812.

[||] On Insanity, its Nature, Causes and Cure, p. 38. London. 1837.

[¶] A Dissertation on the Features and Treatment of Insanity, p. 134. London. 1827.

[**] Traité sur l'Aliénation Mentale, et sur les Hospices des Aliénés, vol. i., p. 165. Amsterdam, 1826.

[††] Outlines of Lectures on Mental Diseases, p. 66. London. 1826.

[‡‡] Des Maladies Mentales, &c., vol. i., p. 34. Paris. 1838.

[§§] Des Maladies Mentales, vol ii., p. 673.

"We must observe," says Dr. J. C. Prichard, "that cases occurring before the twentieth year are the most numerous in males, and that the greatest number of attacks manifest themselves, in men, from 20 to 25, and from 25 to 30. In females, the greatest frequency begins between 25 and 30, and it is not diminished until after 45."‡

Dr. George M. Burrows, after quoting the statistics of 2507 cases admitted into the French hospitals, says, "Thus we find, as might be anticipated, that insanity exceeds, in both sexes, in the most active period of life, between 30 and 39."§

Mr. W. A. F. Brown, in his lectures at Montrose, says, "Extensive observation shows that the greatest number of cases of lunacy occur between 30 and 40."‖ His opinion appears to have been partially, if not entirely, based upon Holst's tables of insanity in Norway and the data from the French hospitals quoted by Dr. Burrows.

"Among the predisposing causes of mental alienation," according to M. Georget, "the following are the most important: 1st, The age from 30 to 40 years; then, that from 20 to 30, from 40 to 50.¶

Dr. J. E. Belhomme, in that portion of his work entitled *Récherches Statistiques*, says, "The age from 30 to 39 years is the epoch of life which furnishes the greatest number of insane; yet, for women, the age from forty to fifty years is also prolific of mental disorders."**

M. Quetelet, the Statistician, says "the age between forty and fifty, or rather the fortieth year, is the period of life most subject to insanity."††

Drs. H. Aubanel and A. M. Thore, from an analysis of the data furnished by several authors, as well as those derived from their personal observation at Bicêtre, arrive at the following conclusion: "It appears to us that we are permitted to establish as a fact, that mental alienation, rare in early life, becomes very common after the twentieth year, and is more common between 30 and 40 years, the epoch in which it is at its maximum."‡‡

M. Parchappe quotes the statistics of the institutions of St. Yon, Bicêtre, Salpêtrière, Charenton, and Turin, making an aggregate of 14,267 cases, in which he finds that "the maximum of admissions of the insane, of both sexes, is from 30 to 39 years."§§

He afterwards (p. 56) makes the assertion that "the age which predisposes the most to insanity is from 30 to 40 years."

In 1845, Drs. Debouteville and Parchappe published the detailed sta-

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[*] Observations sur la Folie, &c., p. 112. Paris. 1818.

[†] Observations on the deranged manifestations of the Mind, or Insanity, p. 100. Boston, 1836.

[‡] A Treatise on Insanity and other Disorders affecting the Mind, p. 106. Philadelphia. 1837.

[§] Commentaries on the Causes, Forms, Symptoms, &c., of Insanity, p. 245. London. 1828.

[‖] What Asylums Were, Are, and Ought to Be, p. 66. Edinburgh. 1837.

[¶] De la Folie, ou de l'Aliénation Mentale, p. 3. Paris. 1823.

[**] Considérations sur l'Appreciation de la Folie, &c. Paris. 1834.

[††] Sur l'Homme et le Development de ses Facultés, vol. ii., p. 136. Paris. 1836.

[‡‡] Récherches Statistiques sur l'Aliénation Mentale, p. 35. Paris. 1841.

[§§] Récherches Statistiques sur les Causes de l'Aliénation Mentale, p. 37. Rouen. 1839.

tistics of 1652 cases received into the Asylum at Rouen. They state that the maximum of admissions falls between thirty and forty years."*

Thus, it will be perceived that, while there is no inconsiderable discrepancy of opinion among recognized authorities, a large proportion of those who are most specific in their assertions, those who restrict the period of greatest prevalence to ten years, concur in fixing that period to the age from 30 to 40.

The works of most of the writers quoted were published before very extensive observations in regard to the subject had been made, and, consequently, their convictions were based upon limited data. A few were written after the accumulation of a comparatively large amount of statistics. Hitherto no other author has published so extensive a collection of cases as M. Parchappe, already mentioned.

As is demonstrated by the subjoined table, I have succeeded in collecting more than twice that number, all from European sources.

AGES OF PATIENTS IN EUROPEAN INSTITUTIONS FOR THE INSANE.

ASYLUMS.	TIME.	Under 20 years.	20 to 30 y'rs.	30 to 40	40 to 50	50 to 60	60 to 70	70 to 80	80 to 90	90 to 100	Unknown	TOTAL.	AUTHORITY.
ENGLISH.													
Hanwell.	1840 to 1844	42	165	207	154	64	40	9	1			682	Dr. Conolly.
Bethlehem.	1781 to 1793	113	488	527	362	143	31					1664	Haslam.
"	1836 to 1840	35	165	155	113	72	22					562	Sir A. Morison.
"	1844	14	74	78	67	37	15	1				286	Dr. J. Webster.
Surrey.	3 yrs. end. 1841	21	119	166	148	101	55	22	3			638	Sir A. Morison.
Retreat, York.	1796 to 1840	25	130	105	86	61	47	13	2			469	Dr. Thurnam.
York, L. A.	1814 to 1840	53	287	386	325	204	98	22				1375	Dr. Thurnam.
	Total.	306	1428	1624	1255	682	308	67	6			5676	
SCOTCH.													
Edinburgh.	1844	8	41	47	37	16	12	1				162	Dr. Mackinnon.
Aberdeen.	15 yr. end. 1845	43	198	193	161	110	40	13			12	770	Drs. Macrobin and Ogilvie.
Dundee.	2 " end. 1845	4	26	22	32	10	12	1				107	Drs. Nimmo and Mackintosh.
	Total.	55	265	262	230	136	64	15			12	1039	
FRENCH.													
Bicêtre and Salpetrière.	1816 to 1833	867	2404	3102	2706	1896	1356	774	20	2	112	13239	Desportes.
Bicêtre.	1784 to 1793	65	329	380	236	130	53					1193	Pinel.
"	1839	36	105	173	116	45	28	14	6			523	Aubanel and Thore.
Charenton.	1826 to 1833	124	381	415	343	187	92	12	3			1557	Esquirol.
St. Yon, Rouen.	1825 to 1843	61	297	493	441	245	*115					1652	Debouteville and Parchappe.
Caen.		7	38	44	32	18	6	1				146	Vastel.
Nantes.		2	6	13	9	1	3	2				36	Bouchet.
Maréville.		204	488	502	318						†254	1796	Archambaut.
	Total.	1366	4048	5122	4231	2522	1653	803	29	2	366	20142	
ITALIAN.													
Palermo.		19	84	90	62	33	18					306	Greco.
Turin.		31	176	213	119	69	27	1				636	Bonacossa.
"		3	31	26	17	11	3					91	Bertolini.
	Total.	53	291	329	198	113	48	1				1033	
OTHER EUROPEAN.													
Prague.	1835 to 1840	81	230	193	144	73	25	5				751	Wilde.
Norway.		188	198	214	150	128	117					995	Holst.
	Total.	269	428	407	294	201	142	5				1746	
Aggregate.		2019	6460	7744	6208	3654	2215	891	35	2	378	29636	

* These cases were "over 60;" probably some of them were over 70, perhaps 80.
† The ages of these 254 cases are not stated. They were probably from 50 upwards.

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* Notice Statistique sur l'Asile des Aliénés, de la Seine Inferieure, p. 21. Rouen. 1845.

Hence it appears, that of 29,636 cases admitted in European institutions, 7744, or a fraction over 26 per cent. of the whole, were between 30 and 40 years of age, the decade which presents the maximum number. The number between 20 and 30 years is to the number between 30 and 40, as 1 is to 1.20, the latter exceeding the former by about 20 per cent.

The respective periods comprehended in the table, arranged according to the aggregate numbers in each, are as follows:

1st.	From	30	to	40	Years.
2d.	"	20	"	30	"
3d.	"	40	"	50	"
4th.	"	50	"	60	"
5th.	"	60	"	70	"
6th.	under	20			"
7th.	From	70	"	80	"
8th.	"	80	"	90	"
9th.	"	90	"	100	"

This table therefore confirms the opinions of Parchappe, Brown, Aubanel, and most of the later writers above quoted. But though this be the necessary result from the aggregate numbers, yet it is not so of all the sections into which the table is divided. Thus, of admissions into the Asylums of Scotland, the maximum number is between 20 and 30 years, instead of between 30 and 40. The same is true of the Asylum at Prague, of the Retreat near York, of the Bethlem Hospital from 1836 to 1840, and of the Asylum at Turin, as reported by Bertolini.

In the total of the English institutions, the proportion between the decennia of 30 to 40 and 20 to 30, is as 1.13 is to 1, the former being 13 per cent. greater than the latter. This excess is, therefore, 7 per cent less than that of the aggregate of the whole table. In the Italian Asylums, the predominance of the decennium of 30 to 40 over that of 20 to 30 is a fraction less than 13 per cent. The difference between the two decennia is greatest in the French Asylums, where the period from 30 to 40 years exceeds that from 20 to 30, by 26 per cent.

There are some sources of error in the table, perhaps the greatest of which is the fact that it includes many cases which were reported not only at the time of first entering the several institutions, but at *every successive admission*, where they have been received more than once. There are some exceptions to this, as in the cases of the York Retreat, and of Bicêtre, as reported by Aubanel and Thore; but it is probably applicable to most of the others.

At all events, the ages of the patients here represented, were taken at the *time of admission* into the Asylums; whereas, the question to be solved relates not to that period, but to the *time of first attack*. Now, reasoning from facts as existing in the United States, as well as from the known disposition of the friends of the insane to delay the period of their removal to curative institutions, it is fair to infer that a very large number of the cases reported in this table were of long standing, and that if, for all such cases, the proper deductions were made, so as to represent the age at the first invasion of mental disorder, the results would be very materially modified. Were the difference between the age at first attack and that at admission into the institutions as great as it has hitherto been in this country, the mentioned alteration would cause the numbers in the decennium from 20 to 30 to predominate over those of any other.

This opinion is strengthened by the change effected in the statistics of the York Retreat, by the substituting the age at first attack for that on admission.

This is made evident by the following table of the cases at that institution—the same cases included in the foregoing table.

	Under 20	20 to 30	30 to 40	40 to 50	50 to 60	60 to 70	70 to 80	80 to 90	Total.
Age on admission	25	130	105	86	61	47	13	2	469
Age at 1st attack	65	156	95	72	50	26	4	1	469

Here, at the time of admission, the excess of the number between 20 and 30 over that between 30 and 40, is equal to 23.8 per cent., but at the time of first attack that excess rises to 64.21 per cent. This shows a difference of 40.41 per cent., effected by substituting the time of first attack for that of admission. But a difference of only about 20 per cent, is all that is required to make the period of 20 to 30 years, in all the cases from European Asylums quoted in the foregoing table, predominate over the period from 30 to 40.

Does it appear probable,—I had almost said *possible*—that, at the York Retreat, the number between 20 and 30 years should be almost 65 per cent. greater than that from 30 to 40, and yet that in the mass of European patients, the number between 30 and 40 should be the greater?—The supposition appears to be absurd.

It is now proposed to attempt an answer to the initiatory proposition, in its application to the citizens of the United States of America. Eight years since, after having investigated the subject so far as the limited data at that time would permit, I arrived at the conclusion that, in this country, the largest number of first attacks of mental disorder is in persons between the ages of 20 and 30 years.* The intervening period has at least quadrupled the number of cases which can be adduced in the investigation of the subject in question.

The Reports annually emanating from the Medical officers of the institutions for the insane, exhibit no less than four different methods of recording the ages of patients:—

1st. The present ages of the patients in the Asylum, on a particular day.

2d. The present ages of all old residents, together with the age on admission of the patients admitted during the year.

3d. The age at the time of admission.

4th. The age at the time of first attack.

Let us ascertain the results of each of these methods.

1st. On the 1st of July, 1841, the ages of the patients in the institution at South Boston, were as follows:—

Under 20	20 to 30	30 to 40	40 to 50	50 to 60	60 to 70	70 to 80	Total.
3	18	32	19	16	5	2	95

Thus, the number between 30 and 40 years is not only much larger than any other, but exceeds that between 20 and 30 years, by 77 per cent. Even in the period from 40 to 50, there are more than in that from 20 to 30. That such, or similar, must be the result of the census of any

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* American Journal of the Medical Sciences, for August, 1838.

Asylum, is obvious from the fact that, in each of those institutions, there are many patients who have been residents for many years, or, if the Asylums have recently gone into operation, the origin of whose disorder was of a date long anterior to that of their admission. The absurdity of assuming such records, as the premises from which to resolve the proposition in view, is too apparent to require further comment. Yet it is far from improbable, that among the statistics of the European institutions, the inapplicability of some of the items to the production of a true deduction, may be as great as that of those just quoted.

2d. All the records at hand which are properly arranged under the second head, are as follows:

AGES OF ALL THE PATIENTS DURING A GIVEN YEAR, INCLUDING THE OLD RESIDENTS AND THOSE ADMITTED.

Asylums.	Time.	Under 20 years.	From 20 to 30 years.	30 to 40	40 to 50	50 to 60	60 to 70	70 to 80	Total.	Authority.
Western Virginia,	In 1845	7	58	69	62	24	13	3	236	Dr. Stribling.
Eastern Virginia,	In 1844		23	47	46	25	6	2	149	Dr. Galt.
Kentucky State,	In 1845	24	86	76	54	35	7	3	285	Dr. Allen.
Maryland Hospital,	In 1845	9	47	53	33	24	9	3	178	Dr. Fisher.
Total.		40	214	245	195	108	35	11	848	

The contents of this table, so far as the age of the old residents is concerned, are open to the objections urged against the cases in the Asylum at South Boston. But the patients admitted during the year, being, on an average, younger than the former residents, the results are considerably modified.

The number between 30 and 40 years still predominates over all others. It still exceeds that from 20 to 30, but in the vastly diminished proportion of but 14 per cent.

The decennium 20 to 30, now ranks second instead of third.

3d. Inasmuch as a proportion, not inconsiderable, of the patients are taken to the institutions within the first year of their alienation, it is evident that the age at the time of admission is an approximation to that at the time of first attack. The subjoined table includes all the cases hitherto reported, at the American Asylums, in such manner as to be arranged in the class now under investigation.

AGE AT THE TIME OF ADMISSION.

Asylum.	Time.	Under 20 years.	From 20 to 30 years.	30 to 40	40 to 50	50 to 60	60 to 70	70 to 80	80 to 90	*Unknown	Total.	Authority.
Mass. state,	13 yrs to 1845	151	624	598	448	230	148	47	10		2306	Drs. Woodward.
Bloomingdale,	23½ " " 1844	115	627	450	264	147	56	22	3	182	1866	Earle.
McLean,	1819 " 1833	70	352	264	191	91	38	9			1015	Wyman.
Frankford,	1817 " 1841	39	240	178	148	102	53	18	5		783	Evans & Earle.
"	1842 " 1845	25	30	32	24	17	8	4	1		141	Evans & Worthingt'n
Pennsyl. Hosp'al,	" 1845	39	274	188	145	65	39	19			769	Kirkbride
Hartford Retreat	7 years	19	107	73	54	20	6	4			283	
"	1844 & '45	17	54	61	41	29	15	2	1	13	233	Butler.
N. Hampshire st	1 yr to 1845	7	17	29	13	15	4	3			88	McFarland.
South Boston,	1 yr " 1845	1	12	11	6	1		1			32	Stedman.
Total.		483	2337	1884	1334	767	367	129	20	195	7516	

The decade from 30 to 40 is no longer the maximum. On the contra-

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* Between 90 and 100 years. 1 not included in the table.

ry, it is exceeded by that from 20 to 30, by 22.98, or a minute fraction less than 23 per cent.

Taking the numbers in these two decennia as the first terms, the subjoined equation is produced

2337 : 1884 :: 100 : 80.61.

Hence, of 7516 patients, for each *hundred* who were between 20 and 30 years of age at the time of admission, there were but *eighty* and a fraction between the ages of 30 and 40.

The several periods of life, arranged according to the frequency of insanity, as exhibited by the table, are as follows :

1st from 20 to 30 Years.
2d " 30 " 40 "
3d " 40 " 50 "
4th " 50 " 60 "
5th under 20 "
6th from 60 " 70 "
7th " 70 " 80 "
8th " 80 " 90 "

It will be perceived that there is a regularly progressive decrease from the decennium 20 to 30, through all the more advanced stages of life.

It might now appear that the original proportion is answered with sufficient certainty ; for if the maximum of *admissions* be during the period from 20 to 30 years, then, for a stronger reason, must the maximum of *first attacks* be in the same period.

But figures are more definite, if not more positive and convincing, than the deductions of *à fortiori* reasoning. I therefore proceed to embody all the statistics bearing directly upon the subject.

AGE AT THE TIME OF FIRST ATTACK.

Asylum.	Time.	Under 20 years.	20 to 30	30 to 40	40 to 50	50 to 60	60 to 70	70 to 80	80 to 90	Unknown	Total.	Authority.
Mass. state,	1833 to 1841	156	414	309	220	115	59	24	1	61	1359	Drs. Woodward.
N. York state,	3 yrs. 1845	105	313	217	121	59	26	3			844	Brigham.
Penn. Hospital,	" 1845	91	334	167	124	39	10	4			769	Kirkbride.
Ohio state,	7 yrs. to 1845	69	303	174	98	38	9				691	Awl.
Maine state,	5 yrs. to 1845	85	168	110	72	35	11	5			486	Bates.
West. Virginia,	all in 1845	47	79	47	24	7	4			28	236	Stribling.
Frankford,	1842 to 1845	40	44	24	18	9	2	3	1		141	Evans & Worth-
Connect. Retreat,	Admit'd 1845	17	35	31	14	10	3	2		16	128	Butler, tington
N. Hamp. state,	1 yr. to 1845.	11	22	27	11	10	4	3			88	McFarland.
Total-		621	1712	1106	702	322	128	44	2	105	4742	

"The tables are turned" now, most emphatically. The number from 20 to 30 is greater than that from 20 to 30, by 54 *per cent.* By a similar equation to that above adopted, we have

1712 : 1106 :: 100 : 64.59.

So that, of 4762 cases, for every hundred between 30 and 40 years, as the time of first attack, there were but *sixty-four* and a fraction between 30 and 40. By a similar process, the ratio of all the periods is found to be as follows :

1st from 20 to 30 100
2d " 30 " 40 64.59
3d " 40 " 50 41

4th under		.20			36 27
5th	from	50	to	60	18.82
6th	"	60	"	70	7.47
7th	"	70	"	80	2.57
8th	"	80	"	90	0.11

The number of cases constituting the basis of this calculation, is sufficiently large to insure a pretty close approximation to perfect accuracy in the result. Future investigations may, and undoubtedly will, change the exact relative numbers of the several periods, but it is hardly possible that this change should be so great as to alter the relative position of the periods themselves, as they are here arranged.

The source of error mentioned in the remarks upon the table of European patients exists in most of the records of the American institutions, and consequently in the foregoing tables. In the statistics of the Bloomingdale Asylum, however, no patient, how many times soever he may have been received, is reckoned more than once; and the age of each is taken at the time of first admission.

Having demonstrated the predominance of the number of first attacks of insanity in the epoch from 20 to 30 years, it remains to be proved whether the same be true of the sexes individually, or whether, in this country, as in Europe, according to several of the authors quoted in the early part of this essay, the maximum number of attacks in females is at a later period, or in a higher decennium of life.

The important constitutional revolution occurring in the system of females, generally, in the United States, between the ages of 40 and 50, is known to be a frequent cause of mental disorder. Hence, as there is no balancing or equivalent cause acting at the same period upon males, it must necessarily be inferred that the average age at first attack is greater among the former than among the latter.

The table subjoined contains the statistics of five of the Asylums included in the foregoing table of age at first attack. The numbers of each sex are placed together.

AGE AT FIRST ATTACK.

MALES.

Asylums.	Under 20 Years.	20 to 30	30 to 40	40 to 50	50 to 60	60 to 70	70 to 80	Unk.	Total.
Penn. Hospital,	50	205	105	57	20	6	4		447
Maine State,	55	90	62	37	23	6	5		278
Ohio State,	29	181	89	51	16	7			373
Western Virginia,	37	47	31	10	4	3		18	150
N. Hamp. State,	5	13	10	4	5	3	2		42
Total,	176	536	297	159	68	25	11	18	1290

FEMALES.

Asylums.	Under 20 Years.	20 to 30	30 to 40	40 to 50	50 to 60	60 to 70	70 to 80	Unk.	Total.
Penn. Hospital,	41	129	62	67	19	4			322
Maine State,	30	78	48	35	12	5			208
Ohio State,	40	122	85	47	22	2			318
Western Virginia,	10	32	16	14	3	1		10	86
N. Hamp. State,	6	9	17	7	5	1	1		46
Total,	127	370	228	170	61	13	1	10	980

According to the numbers in the table of females the several decades occupy the same relative position; they follow the same gradation as in the table where the cases of both sexes were combined. The influence of the cause just mentioned as operating upon females, is observed by the relative increase of numbers between the ages of 40 and 50. In the table of both sexes the period from 40 to 50 is to that from 20 to 30 as 41 to 100, whereas in the table of females it is as 46 to 100.

Among the males, in the last table, the period under 20 years occupies the *third* rank, while in the table for both sexes it occupies the *fourth.*

Now, although it may be demonstrated beyond a doubt that the greatest number of *first attacks* of mental alienation is between the ages of 20 and 30, yet it does not necessarily follow that the *greatest liability* to the disease exists at the same period. In order accurately to determine this question, the number of attacks in each decennium must be compared with the number of persons of corresponding ages in the community.

By the foregoing table it appears that the number of first attacks between 20 and 30 years is 54 per cent. greater than that between 30 and 40. But if the same predominance of 54 per cent. exist in the population of the community, then the *liability to insanity*, in the two decennia, is *equal;* and if that predominance rise higher than 54 per cent. in the period from 20 to 30, then the liability to insanity is proportionably less than between 30 and 40. If, however, it fall below 54 per cent., the liability is greatest in the period from 20 to 30 years.

Esquirol, having classified 12,869 cases of insanity according to age, compared them with a similar arrangement of a population of ten millions, and thence arrived at the following remarkable conclusions:—

"The farther man advances in life, the greater is his exposure to the loss of reason. There are fewer insane from 20 to 30 years, comparatively with the population at that period of life. There are more cases from 30 to 40 years, although the population is less; from 40 to 45 years the population is diminished, but the relative number of insane is augmented. The same is true from 45 to 50 years. The relative augmentation of the number of lunatics is still more strongly marked from 50 to 55 years. From 70 to 75, and from 75 to 80, the relative number of insane is enormous."*

Therefore, according to this author, the *greatest liability* to mental disorder is from the *seventy-fifth* to the *eightieth* year of life! I am strongly convinced that the elements of the mathematical process by which this result was obtained, were greatly vitiated by including the age of many patients at a period long posterior to the time of first attack.

MM. Debouteville and Parchappe compare the ages of the patients at St. Yon—where the maximum number at the time of admission was from 30 to 39 years—with the population of the Department of *La Seine inférieure*, and find that, relatively to the population in each decennium, the greatest number of admissions was in the period from 40 to 49 years.†

Dr. Aubanel and Thore enter into a similar comparison of 3,869 cases admitted into the Bicêtre from 1831 to 1839, with a population of 10,000 in the community, and arrive at the conclusion that the greatest number of admissions, relatively to the population, was in the period from 30 to 40 years.*

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* Des Maladies Mentales, Vol. 2, p. 675.

† Notice Statistique sur L'Asile des Alienés, &c., p. 21-2.

Dr. Thurnam, in his valuable work recently published, computes the proportion, relative to age, between the patients admitted into the Middlesex County Asylum, from 1840 to 1844, and the population of England and Wales, in 1841. He finds that proportion the greatest in the decade from 30 to 40 years.†

The only investigations of this kind, in the United States, that have fallen under my observation, are those of Drs. Bates and Kirkbride.

The gentleman first named assumes the admissions into the Asylum at Augusta, and the census of the State of Maine, as the elements of his calculation, the age of the patients being taken at the time of first attack. His deductions are, 1st, that in males the greatest number of first attacks, relatively with the population, is during the age from 30 to 40 years; and, 2d, that in females the greatest number is between 20 and 30 years.‡

Dr. Kirkbride's calculation is based upon the admissions into the Pennsylvania Hospital for the Insane and the census for 1840 of the State, and the results show that the number of first attacks, as compared with the population, is at is maximum in the period from 20 to 30 years.§

By thus comparing the totals in the foregoing table of "Age at the time of first attack" (p. 85) with the whole population of the United States in 1840, the following results are produced:—

The period of greatest liability is from 40 to 50 years.

	For every 100	cases	between	40 and 50 years
there are	99.1	"	"	20 " 30 "
"	98.	"	"	30 " 40 "
"	78.8	"	"	50 " 60 "
"	55.8	"	"	60 " 70 "
"	42.	"	"	70 " 80 "
"	29.	"	"	under 20 "
"	00.07	"	"	80 and 90 "

By comparing the totals of the same table with the population of the State of New York, the maximum of first attacks would be between 20 and 30 years; and—

	For every 100	cases	between	20 and 30 years
there would be	98.	"	"	40 " 50 "
"	94.3	"	"	30 " 40 "
"	79.3	"	"	50 " 60 "
"	56.1	"	"	60 " 70 "
"	40.3	"	"	70 " 80 "
"	31.	"	"	under 20 "
"	00.06	"	"	80 and 90 "

Finally, by a similar process with the cases of the Utica Asylum and the population of the State of New York, the greatest number of first attacks is found to be between 30 and 40 years; and—

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* Récherches Statistiques, p. 39.

† Observations and Essays on the Statistics of Insanity (p. 163). London. 1845.

‡ Sixth Annual Report of the Superintendent of the Insane Hospital, Maine, 1845.

§ Report of the Pennsylvania Hospital for the Insane, for 1845.

For every	100	cases	between	30 and 40	years
there are	99.1	"	"	20 " 30	"
"	86.9	"	"	40 " 50	"
"	78.7	"	"	50 " 60	"
"	61.7	"	"	60 " 70	"
"	28.4	"	"	under 20	"
"	14.9	"	"	70 and 80	"

The last of these three calculations must necessarily be the most nearly true, because the cases upon which it is based are compared with the local population from which they were almost exclusively derived. By that, it appears that the greatest liability to insanity is, in the State of New York, during the period from 30 to 40 years of age; but the predominance of that liability over the same in the period from 20 to 30 years is very slight.

In computing the comparative number of cases under 20 years of age, in the three tables, the population under 10 years of age was rejected, and the cases compared with the population from 10 to 20 years. This was thought to be the more accurate method, since there are very few cases of insanity commencing at a period of life under ten years of age.

Art XIV.—*Statistics of Private Obstetric Practice.* By James C. Bliss, M.D.

It will, I trust, be a matter of interest to have presented to the readers of the Journal, the Statistics of a number of cases in Private Obstetric Practice, the results of which may serve as a basis for some practical deductions. I am not aware that anything of the kind has been given to the public in this country; and our public Institutions, all comparatively in their infancy, and have not as yet been made available for this purpose. In presenting these details I am aware that the materials are too meagre to give that certainty to general results, which are to be derived from the more ample and abundant means afforded by the large Institutions of Europe; and which might be obtained also, from a wider field of observation in private practice; but it may be the means of directing the profession to this field of inquiry, and aid, to some extent, the researches of any who may be led hereafter to pursue the subject on a more extended scale.

Nothing can be more unphilosophical, and more likely to bewilder, and lead to error in the practice of medicine, than modes of treatment founded on statistical results. It is calculated to retard legitimate inquiries, and the progress of sound medical science; and it is not a little remarkable, that some of the most distinguished and popular members of the profession in our day, have deserted the only safe and rational path of investigation, to deduce systems of practice from principles so extremely fallacious. But while there are conclusive objections to our attempting to arrive at truth in the practice of medicine in this way, the same does not hold good in the obstetric art. Many of our rules of practice, if not founded upon, are at least confirmed by these investigations. The value of the excellent work of Dr. Collins, of Dublin, is greatly enhanced by the very precise, accurate, and elaborate details and tables contained in his volume. It has been through the influence of this example of Dr. Collins, that I have been led to prepare this paper. The facts contained in such inquiries have a bearing on many branches of human knowledge, and when little items serve to swell the aggregate, they are not without their importance; and in this point of view, the motives for presenting this paper will be appreciated.

I have made a record, more or less full, of *Eight hundred and twenty* cases of delivery. Of this number, 815 were born in the following months, viz.,

In the month of	January,	-	52
" "	February,	-	63
" "	March,	-	74
" "	April,	-	57
" "	May,	-	62
" "	June,	-	71
" "	July,	-	65
" "	August,	-	81
" "	September,	-	75
" "	October,	-	80
" "	November,	-	72
" "	December,	-	63

It will appear from this table, that the greatest number of births occurred in the month of August, and the fewest in January. In the former month they amounted to 81, while in the latter there were but 52. In the month of October there were 80, in September 75, and March 74. These facts show that the greatest number of conceptions occurred in the months of December, February, January, July, March, and October; and in the order in which they are named.

The sex of *Seven hundred and ninety-seven* children has been noted. Of this number 395 were males and 402 females. This shows a summing up considerably at variance with most report, the number of male children generally preponderating from three to ten per cent over the other sex. According to the registry of Dr. Collins, a little more than 8-15ths of the total births were males.

The presentation in *Seven hundred and seventy-one* deliveries is recorded. Of this number there were:

Natural presentations,	-	738
Breech "	-	15
Funis & Breech "	-	1
The foot "	-	8
The face "	-	1
The face towards the pubis		7
The arm and abdomen		1

It will appear from this, that in about one case in 22 the presentation was preternatural. The proportion in the Dublin Lying-in Hospital, according to Dr. Collins, was one to every thirty, but it will be remarked that in his Treatise he does not include presentations of the face, and the face towards the pubis, among preternatural presentations. Should these be included, the proportions will not probably very materially differ.

Of the 820 cases, *forty* are noted as being premature births. That is, about one in twenty were born before the full period of pregnancy was completed.

Out of the same number, viz., 820, *twenty-one* were born dead. This shows a small fraction over one still-birth to every thirty-nine deliveries. In the Dublin Lying-in Hospital, a little short of every 15th child was born dead. This discrepancy between Hospital and private practice is doubtless owing to the difference in condition and character of the patients.

The Funis was around the neck once in 127 cases.
" " " twice in 21 "
" " " 3 times in 6 "
" " " four in 1 "

A little over every fifth child, according to this record, had the cord around the neck at birth.

In *seventy-nine* cases of the 820, *the membranes broke* before or at the accession of labor. The duration of labor, in seventy-five of these cases, was as follows, viz :

One hour	1	Twelve hours	9
Two "	2	Thirteen "	1
Three "	4	Fourteen "	3
Three and a half	1	Fifteen "	1
Four hours	6	Sixteen "	2
Four and a half	1	Eighteen "	2
Five hours	8	Twenty "	3
Six "	4	Twenty-four	2
Six and a half	1	Thirty "	1
Seven hours	3	Thirty-two "	1
Eight "	3	Thirty-four "	1
Nine "	2	Thirty-six "	3
Ten "	1	Forty-three "	1

The average duration of labor, under these circumstances, was $10\frac{3}{4}$ hours. This shows that this occurrence did not very materially retard the progress of parturition.

The pregnancies of 690 cases are recorded.

Of the	First	pregnancy	there were	184	cases.
"	Second	"	"	138	"
"	Third	"	"	116	"
"	Fourth	"	"	78	"
"	Fifth	"	"	60	"
"	Sixth	"	"	26	"
"	Seventh	"	"	32	"
"	Eighth	"	"	10	"
"	Ninth	"	"	14	"
"	Tenth	"	"	12	"
"	Eleventh	"	"	10	"
"	Twelfth	"	"	5	"
"	Thirteenth	"	"	5	

This shows that a fraction over every third birth, was the first child.
Every fifth " second "
A little short of every sixth " third "
A little less than every ninth " fourth "

Every eleventh and $\frac{5}{10}$ fifth child
“ Twenty-sixth and ½ sixth “
“ Twenty-first and ½ seventh “
“ Sixty-ninth “ eighth “
“ Forty-ninth “ ninth “
“ Fifty-eighth “ tenth “
“ Sixty-ninth “ eleventh “
One hundred and thirty-eighth twelfth “
One hundred and thirty-eighth was also the thirteenth “

Of the whole number, two only of the Fœtuses were *monsters.*

There were, out of the whole number, *eight twin births.* This shows a proportion much less than occurs in the Lying-in Hospitals in Europe. The number, as above stated, is *one* to every *one hundred and two* cases, while in the European reports it is as follows, viz:

In France	one to every	ninety-five births
In Germany	“	eighty “
In England	“	ninety-two “
In Scotland	“	ninety-five “
In Ireland	“	sixty-three “

See Collins' Treatise, Am. Ed., p. 153.

The duration of labor is noted in 809 cases, and is as follows, viz:

Ten minutes	1 case	11 hours	4 cases
¾ of an hour	1 “	12 “	13 “
1 “	3 cases	13 “	3 “
1½ “	4 “	14 “	14 “
2 hours	4 “	15 “	1 “
2½ “	4 “	16 “	2 “
3 “	6 “	17 “	4 “
3½ “	5 “	18 “	6 “
4 “	13 “	19 “	2 “
5 “	8 “	21 “	1 “
6 “	18 “	24 “	5 “
6½ “	1 “	26 “	1 “
7 “	4 “	29 “	1 “
7½ “	1 “	30 “	3 “
8 “	7 “	32 “	1 “
8½ “	1 “	36 “	1 “
9 “	10 “	37 “	1 “
10 “	3 “	43 “	1 “
10½ “	1 “	46 “	1 “

The average duration of labor, in these 809 cases, was a fraction over ten hours.

Out of the whole number *three* were cases of *instrumental delivery.* The proportion is *one* to every *two hundred and seventy-third* case. This shows a proportion much less than occurs in the European Hospitals, or in the private practice of those from whom we have reports. An interesting table is given in Dr. Collins' Treatise, to which reference has been so frequently made. The following is the average proportion of instrumental deliveries which he has collected from different sources:

In Dresden, Dr. Carus delivered with instruments	1 in every	13
“ Giessen, Dr. Ritger “ “	1 “	9
“ Berlin, Dr. Kluge “ “	1 “	15

Cologne—Drs. Minden and Merrem delivered with instruments,			1	in every	12
Breslau—Professer Andrée delivered with instruments,			1	"	35
Heidelberg—Nagelé,	"	"	1	"	28
Magdeburg—Dr. Voigtel,	"	"	1	"	5
Breslau—Dr. Küster,	"	"	1	"	36
Marburg—Dr. Casper Siebold,	"	"	1	"	9
Vienna—Dr. Boer,	"	"	1	"	96
Paris—Mad. Boivin,	"	"	1	"	183
London—Dr. Merriman, in private practice,	"		1	"	98
" Dr. Bland, Westminster Gen. Dispensary,			1	"	158
" Dr. A. B. Granville, same institution,			1	"	80
Dublin—Drs. Cusack and Maunsell, Wellesley Disp'y,			1	"	34
" Dr. Beatty, New Lying-in Hospital,			1	"	99
" Dr. Joseph Clark,	"	"	1	"	162
" Dr. Collins,	"	"	1	"	114

In the three cases in which instrumental delivery was resorted to, the forceps were used twice, and the perforator and crotchet once.

The first case in which forceps were employed, labor was rendered tedious by narrow pelvis, and the face of the child being towards the pubis. Delivery was accomplished at the end of 33 hours, the child being dead. The mother recovered slowly. An abscess formed around the hip some weeks after her confinement, which was attended with fever and great debility. Her health was ultimately restored, and she subsequently bore a living child without any untoward circumstances.

The second case was that of a lady 42 years of age, with her first child. She had been attended by a practitioner 81 hours previous to my being called. The head was so far advanced that delivery was readily accomplished. The child was living, notwithstanding the long continued pressure it had suffered. The mother also had a good getting up, and without any unfavorable symptom intervening.

The third case was that of a patient laboring under violent puerperal convulsions, with whom all the usual remedies had been employed without success. Delivery was attempted with forceps, which failed in consequence of violent convulsions being brought on whenever any effort was made with the instrument. The child was delivered by diminishing the head and using the crotchet. The cellular tissue of the patient was enormously distended by dropsical effusion. The patient was not seen by the writer after the birth of the child, she being in charge of another physician, but he understood she died some days afterwards of effusion in the chest.

In the case of presentation of arm and abdomen, the child, which was large, was turned and delivered by the feet. It was born dead. The mother recovered without any unfavorable circumstance following.

Four cases were preceded by *puerperal convulsions*. This is in the proportion of one to every 205 births—while, under the mastership of Dr. Collins, only one in every 555 occurred in the Dublin Lying-in Hospital.

One of the cases is detailed under the head of instrumental deliveries. In every case, it occurred with the first child. In each instance, also, there was infiltration in the cellular membrane. In one case only was the urine examined, and in this it was found to be albuminous. The patients, with the exception of the first noticed, were relieved of the convulsions before delivery, by bleeding, stimulating injections, purgatives, and counter-irritants. The children were all born dead: two were in a state of decomposition, and there was reason to believe all died previous to the attack. The patients all did well, with the exception of the one described under the head of instrumental deliveries. Œdema existed in these cases previous to the occurrence of convulsions, and it was considerable, except in one instance, which does not correspond with the observations of Dr. Dewees.

In the detail of cases in my note book, several are noticed in which convulsions were threatened, in all of which there were bloated countenances, and more or less œdema in other parts of the body. In one of these cases the urine was albuminous. These facts would seem to show that Dr. Lyman, whom Dr. Dewees quotes, is correct in stating that œdema is a precursor of convulsions.

The detection of albumen in the urine of females, threatened with or laboring under this disease, has thrown much light on the pathology of the affection; and further inquiries will probably remove much obscurity, which, no doubt, has led practitioners, in many instances, to confound hysteria with this formidable complaint.

In one of the cases, in which the attack occurred in the seventh month, labor came on, and the fœtus was delivered three days after the convulsions had ceased. The child was in a state of partial decomposition.

The observation, that convulsions more commonly occur in the first labor than in subsequent ones, appears to be confirmed by these cases; and likewise, that they happen more frequently when the child is dead, although the latter observation is questioned by some of our best writers. In all the cases the presentation was natural.

The *placenta* was attached over the mouth of the uterus in *three instances.* This is in the proportion of one to every 273 cases.

In one instance, the edge of the placenta was over the mouth of the uterus. The patient had repeated hemorrhage for two months previous to delivery, but it was at no time alarming. Labor commenced with profuse flooding, followed by syncope. The vagina was plugged, which arrested the hemorrhage till the head advanced so as to make pressure. The mother was safely delivered, but the child was dead and exceedingly blanched.

In the second case, I was called to a patient who was attended by a popular female. She had been flooding for ten hours,—was in a state of extreme exhaustion, and swooned immediately after I entered her room. The hand was passed up through the edge of the placenta—the feet brought down, and the child delivered in three minutes from the commencement of the operation. The child was born alive, but the mother, although she lost less than a pint of blood at the time, died at the end of an hour and a half after the birth of the child.

In the third case, the patient was taken with flooding on Sunday, but not profuse. On Wednesday, a profuse hemorrhage suddenly occurred. A physician was called in, who found, as he stated, the os uteri dilated to the size of a shilling. When seen an hour afterwards by the writer, the flooding had been so great and the exhaustion so extreme, that the patient was almost moribund. On examination, a small portion of the placenta was found protruding from the mouth of the womb. The feet of the child were brought down and secured by a tape, and attempts made to deliver in this way, but decomposition had made such progress that the feet were immediately separated from the legs; and, notwithstanding the relaxation which had taken place in the mother from the great exhaustion, it was found difficult to effect delivery on account of the condition of the fœtus—the abdomen being very much distended by effused fluid in its cavity. The finger was passed through its parietes, through which opening the fluid rushed out. The finger was then hooked over the pelvis, and in this way the body was brought down and delivered. The patient survived but about twenty minutes. The loss of blood was inconsiderable at the time of delivery.

The whole of the cases might be presented in detail with some other particulars not adverted to above, but it would be extending this paper beyond what would be desirable for the Journal. The arrangement and bringing together all the various particulars has cost some labor, but the writer will be amply compensated if it shall lead other members of the profession to give to the public similar inquiries and observations.

There is one thing that perhaps ought to be adverted to in comparing the results given above, with those of public institutions, and that is, that most of the patients were among a class of females who could command the comforts and conveniences of life, and were therefore less exposed to accidents than those less favorably situated.

ART. XV.—*Indigenous Medical Botany*, No. 5. By STEPHEN W. WILLIAMS, M. D., late Professor of Materia Medica, &c.

THE TRILLIUMS.—Forty-five species of this elegant genus of plants are mentioned in the New Edinburgh Encyclopædia. Doubtless there are many more, as Rafinesque enumerates thirty-three species in the United States, and a much greater number of varieties than the species. I have seen but three species in my native town of Deerfield Rafinesque thinks that this beautiful genus of plants is peculiar to North America, but according to the Encyclopædia mentioned above, very many species of it are found in various parts of the globe, from the frozen Alpine mountains to the torrid zone. In fact, there is scarcely a portion of the earth in which it is not to be found.

The three species found in this town, grow in marshy localities, at the foot of mountains, in the woods, and in swamps. They grow indiscriminately together, though the purple variety, or species, is the most common, and its root is considered to be the most powerful, but for what reason I am unable to say; the crythocapum or pictum, is the next most abundant, and the cernuum is scarce. The simplicity and elegance of these plants, blossoming early in the season, have long attracted the notice of botanists. But few of our plants surpass them in beauty. Rafinesque thinks he was the first to introduce this fine genus into the Materia Medica. I, however, published an article on it, in the New England Journal of Medicine and Surgery, in the year 1820, ten years before his Flora was published, and it was noticed empirically long before that period.

The genus Trillium belongs to the sixth class and third order of the Linnæan arrangement, and to the twelfth division, or order Asparagi, of the natural order of Jussieu, and to the order Melanthaceæ of Lindley. Although the generic term of Trillium is of Linnæan origin, it is not known for a certainty from whence it received its derivation. Probably it received its name from the fact that the calyx and petals consist of three leaves, the cells of the fruit and the stigmas are three in number, and there are three leaves.

The generic description, as given by Rafinesque, is as follows:—

Genus Trillium Perigone double, macescent, each three-parted; exterior calciform, interior corolliform. Six stamina inserted at the base of the segments, nearly equal, anthers linear. Pistil oval, three-linear; stigmas (seldom in style); berry three-celled, polysperm. Constant habit of the whole genus.

Vulgar Names. Birthroot, Broadland, Bethroot, Rattlesnakeroot, Wakerobin, Coughroot, Indian balm, Ground lily, Jewsharp, Indian shamrock, Parisroot, Truelove, &c., &c.

1. *Trillium erectum, Linn, sp. pl.* 484. *Torrey, fl.* p. 376. T. rhomboidum *Michaux*, fl. 1. 215. *T. atropurpureum, Bot. Mag.* t. 470. T. *fœtidum, Par. Lond.*, to 35 (Lindley.)

Specific description. Rhizoma large, primrose, with thick horizontal fibres. Stem a foot or more in height, sheathed at the base. Leaves large, abruptly acuminate, closely sessile. Peduncles about half as long as the leaves, inclined to one side. Flowers large, a little nodding. Leaflets of the calyx oblong, lanceolate, acuminate. Petals dark purple, nearly as broad again as the calyx. Filaments distinct; anthers linear, stigmas sessile, spreading. Berry large, nearly black. (*Torrey.*) Flowers in May.

2. The *Trillium Erythrocarpum* of Michaux is the *pictum* of Pursh, and the *undulatum* of Willdenow. Elliot's specific character is:—Peduncle declining; petals oval, lanceolate, acute, recurved, twice as long as the calyx; leaves ovate, acuminate, rounded at base, abruptly attenuate. Leaves very wide for their length. When large almost cordate, as mentioned by Michaux. *Peduncle* nearly an inch long. Corolla white, with purple vines at base.

3. *Trillium Cernuum.* This, according to W. P. C. Barton, is the Trillium cernuum of Prush, Muhlenburg's Cat. and Herbarium, Elliot, Nottell, Barton's Comp. fl. Phil: but not of Linnæus, Catesby, Michaux, or Walter.

Specific Character. Peduncle rounded, petals lanceolate, acuminate, flat, reflected, as long as the calyx, leaves dilated, rhomboidal, abruptly acuminate, on short petioles. (Pursh.) Root perennial. Stem simple, erect, from one to two or two and a half feet high, cylindrical, siskin green above, dull purple below; base white invested with sheaths. Leaves three-drooping, terminal rhomboid, ovate, narrow at base, sessile, or nearly so, terminating at their apices in abrupt points, deeply veined, veins prominent and numerous below, yellow green above, under surface shining. Peduncle from one half of an inch to an inch, rarely an inch and a quarter long, turned downwards beneath the two leaves, and concealing the flower under one. Calix dependent, consisting of three petaloin, acuminate, lanceolate, or lanceolate-ovate segments, the margins approaching by reflected convolutions near the apex. Petals three, white, turbinate or turned upwards in a direction contrary to the calyx leaves; also acuminate, occasionally one half greenish, like the petaloid calyx. Anthers constantly six in number, a quarter of an inch long, oblong, white, with yellow pollen on the margin. Stigmas three, prismatic, and convoluted at the end, tinged with carmine, projecting beyond the anthers, and being aggregated into a solid mass at base. Berries purple. Grows in damp rocky woods or grottoes near rivulets, delighting in rich soil throughout the Union. Flowers in the beginning of May—to the south in April. (W. P. C. Barton, Flora of North America—tome two, with a beautiful colored engraving.)

Medical Use of the Trilliums. They have been used empirically, if not in regular practice, as I have mentioned above, for many years. As I am for producing information from *any source*, I will notice, in the first place, what that noted Herbalist, Henry, of New York, said of it in his Herbal, published as long ago as 1812, with plates. He considers the root as powerfully astringent, and says he has found it of great efficacy in violent uterine hemorrhages, hematuria, or bloody urine, in obviating gangrene, and in curing carbuncles. He says he has been instrumental in saving the life of a sailor who was taken with violent pain in his penis, and made bloody water continually. After evacuating him thoroughly, his prescription was to take a teaspoonful of the powder of the root four times a day. Two or three days afterwards, he said he had the happiness to find him entirely well. The manner in which he prepares it is as follows. Preparation.—In all immoderate flow of the catamenia, spitting or discharging of blood, the patient may take one teaspoonful three times a day, in a teacupful of the tea, made of yarrow or St. John's root, after bleeding, and using cooling laxatives. This, he says, is always effectual. He also says:—"For the benefit of gentlemen of the college, and the medical society, as well as private individuals, I will insert the following new discovery, which obviates the gangrene, and quickly cures carbuncles. A case.—I was called to visit a French lady living in Roosevelt street, New York, who had a carbuncle on her arm as large as a crown piece. It was of a fiery red color, and sharp watery ichor, or water running. I made a poultice of equal parts of beth and bloodroot, powdered fine, and mixed with honey, and bound it over the carbuncle, with directions for renewing it every two hours, and taking a purge. When I called the next day, I found, to my great satisfaction, that the carbuncle was killed, and only a brown mark was left, and has never returned." This poultice, he continues, is also a certain cure for old putrid ulcers, obviates the gangrene or mortification, and will prevent the cutting off of many limbs in our hospitals, and on board ships of war. This work of Henry is written in so slovenly a manner, is so empirical, and unscientific, and is so calculated to mislead the young botanist, that it is presumed it is not in the hands of many regular and scientific physicians.

I have been surprised that this plant has not been more noticed by writers on the Materia Medica. It has been employed by many herbalists, and by the Indians of some of the tribes in North America, &c. As there is so little dependence to be placed upon the empirical practice of such pretenders, it may account for its not being introduced more generally into regular practice. The Botanic physicians make some use of it in their practice. I have used in my practice, the three species found growing in this town, the erectum, the erythrocarpum or pictum, and the cernuum. Rafinesque mentions the species most commonly employed, as the Trillium mutans, pictum, grandiflorum, medicum, longiflorum, and rotundiflorum. He says they are all astringent, restringent, pectoral, antiseptic, alterative, &c. The smell of the roots somewhat resembles cedar. They are slightly aromatic, like copaiba. Salivation is induced by chewing the roots; the tears flow, and the throat is irritated. Then follows a sensation of coolness throughout the bodily frame. They are useful astringents in all kinds of hemorrhages, and they are successfully employed in tumors, putrid ulcers, carbuncles, &c. Their astringent properties are milder than geranium or Erignon, but they are not so heating. (Rafinesque.) Rafinesque further says, "as a tonic they appear very beneficial, nay, a certain cure, with bloodroot for inflamed carbuncles and ulcers, after a purge; it is said they obviate, or prevent gangrene and the need of cutting off mortified limbs. Even the leaves are useful applied to tumors. In female complaints, such as leucorrhœa, menorrhagia, after parturition, they act as good restringents; the Indians value them both in Canada and Missouri. They say in Canada, that the roots chewed, will cure instantly the bite of rattlesnakes, both in man and cattle. Mr. Hawkins saw an Indian make the experiment for a gill of rum; how it acts was not stated. The Indians of Missouri call them *Mochar Newachar*, meaning hot and cold; it is their palliation for consumption. The sessile species are called *Jewsharp* in Kentucky, and used for sores and ulcers. The Trillium tinctorum is one of the red paints of the Western Indians; the roots stain the hands, and dye red with alum."

I published the substance of the foregoing remarks in the New England Journal of Medicine and Surgery, in October, 1820. I then hoped I should draw the attention of my professional brethren toward the Trillium, and I hope that the communication in this Journal will have the same effect. I am happy to say, that several physicians in this neighborhood are using it successfully in hemorrhages.

In all kinds of active hemorrhages, I generally begin with doses of one drachm of the powdered root for an adult, in molasses or sweetened water, and repeat the dose according to the urgency of the symptoms. In extreme cases, I follow the prescription as often as once an hour, till the bleeding ceases. In common cases, three doses in twenty-four hours will be sufficient. I give a cathartic after the use of the powder, though the constipation is not so great as after the use of cerassa acetate and some other astringents. My friend, Dr. Alpheus F. Stone, of Greenfield, a highly respectable practitioner, uses pounds of this medicine in his practice every year, and thinks it is not surpassed by any article in the Materia Medica. He has seen great and decided benefits from it in menorrhagia and hæmoptysis, in repeated instances. Other practitioners in this vicinity make much use of it.

It is not exclusively for its power as an astringent, that it is recommended to the consideration of physicians. It seems to be possessed of the property of arresting the progress of cutaneous eruptions in an eminent degree. Dr. Stone gave it to a patient laboring under menorrhagia, who had likewise been afflicted for years with an universal scaly eruption, which at times was very red and itching, and appeared to be of the scrofulous kind. She had made use of various remedies for it, to little or no effect. After using the powder a few days, the eruption disappeared, and the surface of the skin was left perfectly smooth. In a few weeks the eruption returned, when she again resumed the use of the medicine, which in a short time cured the complaint. He has, likewise, used it with success in the case of his little son, who for some time had been afflicted with scrofulous eruptions. I cannot explain the *modus operandi* of this medicine in this complaint. It, however, deserves further trial from physicians.

By the common people this root is used in parturition, and it is believed by them to be of great efficacy in expediting the birth of the child. It is generally known by the name of birthroot, a corruption of beth.

The root of these plants, which is the only part used as a medicine, has not been subjected to chemical analysis. When green, it is extremely caustic and pungent to the taste, but like the genus Arum, wakerobin, or wild turnip, it loses much of its causticity in drying. The dried root does not manifest much astringency to the taste.

The proper time for gathering it, is when it is in blossom, which, in this climate, is in the month of May. The roots would probably be more efficacious, like those of most perennial plants, if collected late in the season, but the plants drop their leaves soon after flowering, and it is impossible to find them long after this period. They should be washed, strung upon twine or thread, and dried in the sun. Some divest the root of its fibres, but it is unnecessary, for they are equally efficacious with the body of the root.

DEERFIELD, MASS., Dec. 1, 1846.

PART SECOND.

Critical Analysis.

Art. XVI.—*A Treatise on Diseases of the Air Passages: Comprising an Inquiry into the History, Pathology, Causes, and Treatment, of those Affections of the Throat called Bronchitis, Chronic Laryngitis, Clergyman's Sore Throat, etc., etc.* By Horace Green, A. M., M. D., etc. Wiley & Putnam, 161 Broadway.

In the present state of International Copy-right Law, when the best foreign works can be had for nothing, we hail with pleasure any attempt on the part of the profession, to contribute towards building up a medical literature of our own; and especially, when so well sustained and meritorious as the present. The profession, in this country, has been absolutely compelled by the force of circumstances,—matters connected with the bookselling trade,—to depend on foreign sources for a supply of professional reading; and, because our government has thought proper to allow *free-trade* in books, and in nothing else, we have been unjustly reproached by foreigners, as having no medical literature of our own, and of deriving our supplies exclusively from across the Atlantic. No one can doubt that we have talent, learning, industry, all the intellectual capital needed, to compete in the race of medical authorship with any nation on the globe; but, at present, the odds are too fearful to allow us to enter the race; we cannot live on air; and booksellers are not all patriots and saints, ready to reward home merit, irrespective of their own interests. If they can procure an article equally good, for nothing, can any one blame them for not paying liberally for the same article, because it is of home manufacture?

Take an example. Suppose any other articles of manufacture, requiring great experience, talent, and research, could be imported, and by some process of reduplication, furnished here for less than half the original cost, can any one believe that an American manufactury of the same kind of article could for a moment compete with it?

Some of our writers, who have, in the want of other kinds of encouragement, been tempted to make additions to foreign works, the better to adapt them to the existing wants of the profession at home, have also been reproached, not only in foreign journals, but sometimes even in our own, for consenting to act so subordinate a part, and stand gentlemen ushers to foreign writers; while such are their comparative merits, that were justice done, they would, doubtless, often reverse their relative positions.

Although we have not many original medical authors of our own, if we consider monographs and text-books only; yet, if we compare our medical periodicals with those of foreign countries, we may challenge any nation to produce a more numerous or meritorious class of writers. These articles show what we might expect under favoring and favor able circumstances. We shall resume this subject hereafter.

We have, in former numbers of our Journal, repeatedly called the attention of our readers to the topical treatment of laryngitis by means of a solution of nitrate of silver, applied to the internal surfaces of the larynx; and we have assigned to Dr. Green the credit, to which, we believe, he is fairly entitled, of having been the first to introduce this mode of treatment (originally suggested by MM. Trousseau and Belloc) into this country.

The first chapter of Dr. G.'s Treatise consists of a full account of the "Anatomy of the Larynx, Trachea, and Bronchi," drawn from Meckel, Carpenter, and other standard writers. The second chapter treats of the "Physiology of the Mucous Follicles," which is followed by a chapter on the "Pathology of the Throat, Larynx, and Bronchi," in which we are presented with a very lucid description of the structural changes consequent on superficial inflammation of the mucous membrane of the throat, and on plastic inflammation of the lining membrane of the air passages, etc. Passing by these, we come next to "Follicular Inflammation of the Throat and Air Passages." On this affection, Dr. G. remarks:—

"The pathological conditions of the lining membranes of the air-passages, which now have been briefly examined, constitute the principal morbid alterations, to which pathologists hitherto have ascribed the known, primary disorders of the respiratory tubes.

"That there occur often in the tissues of these parts, other structural lesions which frequently are productive of important disease—lesions which, hitherto, have not been properly appreciated by pathologists, I shall now proceed to demonstrate.

"In the foregoing pages, I have examined, to some extent, the structure and physiology of the numerous glandulæ, or mucous follicles, which are found scattered along the whole extent of the lining membrane of the respiratory tubes. These glandular bodies are, themselves, the primary seat of important structural changes. That peculiar affection of the throat, which, under the appellations of 'Bronchitis,' 'Chronic Laryngitis,' 'Clergymen's Sore Throat,' etc., etc., has occurred, especially during the last ten or fifteen years, so frequently among public speakers and others, consists, primarily and essentially, as I shall be able, I think, to demonstrate, *in a diseased condition of the glandular follicles, of the mucous membrane of the throat, larynx, and trachea.*

"Commencing, generally, in the mucous follicles of the isthmus of the fauces, and of the upper portion of the pharyngeal membrane, the disease may be extended, until the glandulæ of the epiglottis, larynx, and trachea, and sometimes those of the œsophageal membrane, are extensively involved in the diseased action.

"The structural changes, to which the mucous follicles of the throat and air-passages are liable, are: *Inflammation*, which may result in *Ulceration*, *Hypertrophy*, *Induration*, or in a *Deposition of tuberculous matter in the follicles themselves;* attended, in most of these conditions, by a greatly increased and vitiated mucous secretion.

"The disease of the mucous glandulæ may be *primary* and *uncomplicated*, and be limited entirely to the fauces and pharyngo-laryngeal membrane; or, it may be *complicated* with *hypertrophy, and induration of the tonsils*, and with *elongation* of the *uvula*. It may accompany, or be consecutive to, other affections of the air-passages, and co-exist with *Laryngitis*, *Bronchitis*, or with *Pulmonary Phthisis*."

With respect to the history of this affection, Dr. G. states that it may have existed for an indefinite period of time, and yet have escaped the observation of medical writers, so far as not to have been considered a distinct disease; the first case that came under his notice, was in 1832. We observed the complaint several years anterior to that, as stated in our Essay on the "Causes of Disease among the Clergy," and published in the Literary and Theological Review, for Sept., 1836.

> "For some time after the appearance of the disease in this aggravated form, it seemed to be confined in its attacks to public speakers, and of these the clergy were the most frequent sufferers. Hence, the affection was called the 'Clergyman's Sore Throat.' It was soon found, however, that individuals of every profession, of all occupations, and of different ages and sexes, were liable to the disease. Of nearly four hundred cases, that have fallen under my observation, only about seventy-eight; or one in five, of this number, were, in any way, public speakers. When however, the affection does occur, in those persons who are in the habit of exercising the vocal organs, by public speaking, singing, teaching, &c., it is always, for obvious reasons, attended with symptoms of a more aggravated nature, than when it appears under ordinary circumstances."

The following Description of Follicular disease of the Air-passages is extremely accurate, and the best with which we are acquainted:—

> "This peculiar malady consists essentially, in its formative stage, of an inflammation of the mucous glandulæ, which is sub-acute in its character; and which may result, as above stated, in hypertrophy, ulceration, or induration of these glandulæ, or in a deposition of tuberculous matter into the substance of the follicles themselves.
>
> "In its simple and uncomplicated form, the affection commences, invariably, in the mucous follicles of the fauces and pharynx; and is extended thence, by continuity, to the glandulæ of the epiglottis, larynx, and trachea; and, in some instances, to those of the œsophageal membrane.
>
> "So insidious, frequently, is the onset of this disease; and so gradual its progress, that, in some instances, it will be found to have continued many months; and to have made considerable advance, before the presence of any prominent, local symptom, shall have called the attention of the individual to the existence of the affection. He then, perhaps, becomes aware of an uneasy sensation, in the upper part of the throat, accompanied by a frequent inclination to swallow; as if some obstacle, in the passage, might be removed, by the act of deglutition; or, more frequently, there is an attempt made, and often repeated, to clear the throat, by a kind of screatus, or hawking; and to relieve it of a sensation of 'something sticking at the top of the windpipe.' About the same time, there is observed, an alteration in the quality, or *timbre* of the voice; there is experienced, in the vocal organs, a loss of power, and a hoarseness is present, which at first is hardly perceived, in the morning, or after a full meal; but, which is increased towards evening, and after speaking, or reading, longer or louder than usual. The mucous secretion, which, in a healthy condition of the glands, is bland and transparent, becomes viscid, opaque, and adherent; and is increased in quantity. Frequently, there is a slight soreness, felt about the region of the larynx, but seldom is any cough present, at this stage of the disease. In this condition, the symptoms may remain, for a long period; sometimes, for years; nearly disappearing, at times, and, then, again, being greatly aggravated, by vicissitudes of temperature, increased exercise of the vocal organs, and by various other morbific causes.
>
> "If we inspect the throat and fauces, during the progress of the above symptoms, we shall find the epithelium, which in the healthy state of mucous tissue, covers its surface, more or less destroyed; its absence being manifested, by the slightly raw, or granulated appearances which the membrane presents; the mucous follicles will be found hypertro-

phied, and will appear distinctly visible; especially those studding the upper and posterior part of the pharyngeal membrane. (See plate I.) If the disease has been long-continued, a portion of the follicles may be found indurated, or, in some instances, filled with a yellowish substance, having a resemblance to, and presenting the physical characters of, tuberculous matter; whilst striæ of opaque, adhesive mucus or of a muco-purulent secretion, may be seen hanging from the veil of the palate, or coating the posterior wall of the pharynx. As the disease advances, and the follicles situated at the root of the epiglottis, and in front of the arytenoid cartilage; and the still more numerous glandulæ, of the laryngeal mucous membrane, become involved in the morbid action, all the above symptoms appear greatly aggravated; the hoarseness is much increased, and is constant; speaking, or reading aloud, is attended with great difficulty; and when continued for any period, is followed by pain, and increased soreness, in the region of the larynx; and by a sensation of extreme languor, not only about the vocal organs, but throughout the whole system. In some cases, where the disease affects the glands, situated in the ventricles of the larynx, and near the vocal chords, the voice becomes completely extinguished; or if, by great effort, the patient essays to speak aloud, the vocal resonance is uneven, harsh, and discordant.

"In such cases, notwithstanding the situation and extent of the disease, there is seldom present, any decided, or troublesome cough; and, in this respect, follicular disease differs, essentially, from all other equally grave laryngeal affections.—Cases have fallen under my observation, repeatedly, where the affection had advanced, until the symptoms present, indicated extensive disease of the follicles of the larynx, and of the membrane covering the vocal ligaments;—until the ulceration of these glands, situated at the root of the epiglottis, could be felt, upon the laryngeal surface, and yet the patient would remain free, or nearly free, from a cough, notwithstanding an abundant acrid secretion, poured out by the diseased follicles, would occasion an incessant hawking, to clear the upper part of the windpipe, and the pharynx, of this tenacious mucus."

The cases which are given in illustration of this affection, are very striking and numerous, but our limits preclude our quoting any of them—many of them are cases of clergymen, or lawyers of distinction; some of which had resisted every other mode of treatment, but were promptly relieved or cured by topical cauterization of the larynx. The follicular disease, described by Dr. G., often terminates in ulceration of the mucous glandulæ, which is also successfully treated in the same manner; employing, at the same time, some general remedies, as conium, corrosive sublimate, iodide of potassium, sarsaparilla, etc. This disease may assume a malignant form, or it may be complicated with Chronic Bronchitis, for causes of which we must refer to the work itself.

One of the most valuable chapters of the work, is that on the "Pathology of Follicular Disease of the Air-Passages." There are many original suggestions thrown out, relating to hypertrophy, induration, morbid secretion, and ulceration of the follicular glands, which display great accuracy and acuteness of observation, and entitle the author to much credit as a pathologist. We quote what is laid down relative to ulceration of these glands, as we have often verified the statements in our own practice.

"The observation has already been made, that, in all cases of long-continued chronic irritation of the mucous glandulæ, there exists a tendency, in the morbid action, to terminate ultimately in ulceration. Ulceration is always preceded by some degree of inflammation; but irritation, and engorgement of the cryptæ, may continue for a long time, in many cases, before the occurrence of that process,—a solution of continuity with suppuration,—which constitutes true ulceration. In other cases, after the irritation has persisted for some time, the engorged follicle presents a small, ash-colored point; which is surrounded by an inflamed base, and has red, and slightly elevated edges. In follicular disease these ulcers, which ordinarily spread slowly, are, generally, first observed about the arches of the palate, and on the back of the pharynx; they next attack the laryngeal face of the epiglottis, and the epiglottic glands, situated at the base of this cartilage, and spreading by continuity; they in some instances invade the mucous follicles in the ventricles, and around the chordæ vocales. Indeed, there is no part of the larynx and trachea that may not be the seat of ulceration.

"In their early stages, ulcerations of the mucous glandulæ are small and superficial; continuing for a long time, not only are the glands destroyed, but the mucous, the sub-cellular tissues, and even the cartilages themselves, may become involved in the ulcerative process.

"Intimately connected with the pathology of this disease, are those morbid conditions of the mucous membrane which, sooner or later, occur, to some extent, in all forms of follicular disease. One of the earliest and most common alterations which take place in the mucous linings of the air-passages, in the early stage of follicular disease, is an increase in their thickness. Invited by the chronic irritation which has been set up in the diseased follicles, there is, at first, an additional quantity of blood received into the contiguous mucous and sub-mucous cellular tissues. This is followed by an infiltration of serum, within the substance of these tissues, by which interstitial deposition they are rendered swollen and pulpy.

"In the more chronic and long-continued form of inflammation, an interstitial infiltration of lymph sometimes takes place, which renders the mucous lining more dense, and constitutes the true hypertrophy of this membrane.

"In almost all cases of follicular disease, however, there occurs, eventually, an opposite condition of things from the above: for, after the affected glands have poured out their increased and vitiated secretion for a long time, not only the surrounding, engorged membranes are unloaded, and their increased thickness removed, but the sub-cellular tissues and the pharyngeal muscles become atrophied; in part, probably, from the increased absorption which has been set up; and we then have, on inspection, those enlarged or cavernous throats, so frequently observable in long-continued follicular disease, and to which allusion has more than once been made.

"Connected with, and following this morbid condition of the throat, is an interesting physiological fact, which it may be proper here to mention. After the removal of the disease by a successful plan of treatment, a deposition of healthy, structural matter commences, and the calibre of the enlarged throat is, in a short time, greatly reduced in its diameter. The filling up of the posterior pharynx, in these cases, usually commences, first, on the *right* side; so that, not unfrequently, the fleshy fibres of this side, will be, for a time, increased in thickness, to a considerable extent beyond those of the left. The muscles of both sides become, at length, fully and equally developed; until this takes place, however, perfect and natural vocalization will not be fully restored."

Dr. G. divides the *causes* of Follicular Disease of the Air-Passages, into the *remote*, or *predisposing*, and the *immediate*, or *exciting;* among the former, he ranks *hereditary tendency*, *climate*, *debility*, *sex*, and *age*. Under *debility*, produced by severe and protracted mental labor, conjoined with mental anxiety, so frequently a cause of this affection in clergymen, as we first pointed out in our essay already referred to, Dr. G. may quaintly and truly observe :—

> "Subjected, as such inevitably are, to constant mental anxiety, about temporalities ; and obliged, at the same time, to labor, week after week, that they may prepare suitable *spiritual food* for their flocks, they become, themselves, so far as regards this life, like the 'vessels of wrath' against whom they declaim, '*fitted* for destruction'—the easy, and almost certain prey to disease !
>
> "I speak not at random on this subject ; for, there has come under my own observation, case after case, of individuals of this profession, who have broken down, under the combined influence of mental labor and mental inquietude.
>
> "I am not the advocate of 'fat livings' for 'spiritual drones ;' but the *laborer* is worthy of his hire ; and that people, or that community, who employ a spiritual laborer, whose time, and talents, and life, are consecrated to their service ; and yet, who withhold from him any part of that support which is necessary to place him above these temporal cares, rob him of his own, as truly, and, in the eye of heaven, as criminally, as the house-breaker who despoils him of his goods !"

The *exciting causes* of follicular disease are, according to our author, *influenza*, *eruptive fevers*, *exercise of the voice*, *tobacco*. We differ in opinion from Dr. G. in respect to the agency of dyspepsia in exciting follicular disease of the air-passages ; so far as we have observed, it is a frequent exciting cause of the disease ; and the same remark will apply to the exercise of the voice.

Dr. G.'s remarks on tobacco are entirely coincident with our own :

> "With regard to the effects which are produced on the human system by the habitual use of tobacco, different opinions are held, and have been expressed.
>
> "That a deleterious influence is exerted on the animal economy, by its use, most pathologists, of the present day, admit. Of this, after having watched for many years, in my practice, the effects of this narcotic, I entertain not a doubt ; and I fully accord with the opinion expressed by Dr. Prout, who observes, in his work, 'On the Nature and Treatment of Stomach and Urinary Diseases,' that it [tobacco] disorders the assimilative functions in general, but, particularly, as he believes, the assimilation of the saccharine principle. 'I have never, indeed, been able, he adds, to trace the development of oxalic acid to the use of tobacco ; but, that some analogous, and equally poisonous principle (probably of an acid nature), is generated in certain individuals, by its abuse, is evident, from their cachectic looks, and from the dark, and often greenish yellow tint of their blood.'
>
> "In the 'Elements of Materia Medica,' Dr. Pereira, in speaking upon the physiological effects of the moderate use of tobacco, on the human system, remarks : that he is not acquainted with any well-ascertained ill effects resulting from the habitual practice of smoking tobacco.
>
> "He admits, however, that he is not so competent to speak of its effects when otherwise employed, as in England 'the practice of *chewing* tobacco is principally confined to sailors ;' and is, therefore, less frequently submitted to his observation.*
>
> "As an exciting cause, the use of tobacco, in my experience, has proved a powerful agent in the production of follicular disease of the throat. Acting as a stimulant, directly, and constantly, upon the mucous follicles of the fauces and throat ; and greatly increasing, as it does, the

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* Op. supra citat., p. 318.

secretion of these glands, its employment, as we should conclude *à priori*, must have a direct tendency to develope the disease; especially, if a predisposition to the affection exists: hence it has occurred to me to notice, that of a great number of cases of throat-ail, which, during the last year or two, have come under my observation, a large proportion of them have taken place in individuals, who had been, or who were at the time, in the habitual use of tobacco.

"My attention has been called more particularly to this subject, from having noticed, several years ago, some observations on the use of tobacco in laryngeal and bronchial affections, by an eminent surgeon of this city. After having alluded to the almost universal use of tobacco in the countries of Northern Europe, he observes:—'In one very fatal and distressing form of disease, to wit, Laryngeal Phthisis, and Bronchitis, among public speakers, the fact is very clearly established, that the moderate habit of smoking, by the drain it accomplishes, and its anodyne qualities, has been eminently useful, at least as a preventive of that peculiar malady so frequent in the United States, especially among the clergy.'*

"From this opinion of my distinguished countryman and friend, I am compelled to differ, entirely, by the statistical facts, which I have obtained on this subject. Not only has the use of tobacco, in any and all its forms, proved, in my experience, an exciting cause of laryngeal disease; but where its employment has been persisted in, during the treatment of any case, I have found it impossible to restore such, to perfect health."

We pass over the chapter relating to the symptoms of this affection, as they are easily recognized. With respect to the *treatment*, Dr. G.'s remarks are eminently sound and practical; after pointing out the inefficiency of the means generally employed in the treatment of this disease, our author proceeds to speak of topical applications; and states that, after having tried many remedies, he became satisfied, that for safety, efficiency, and certainty of action, no known therapeutic agent can compare with *crystals of nitrate of silver;* the solid nitrate of the tubular form, *argenti nitras fusum*, is objectionable, from the fact, that it is more likely to contain *nitrate of potash*, or *copper*, or *lead*, in combination.

He remarks:—

"When pure, the crystals are transparent, white, or nearly colorless, and are completely soluble in distilled water. A solution of the strength of from two to four drachms of the salt, in an ounce of distilled water, when applied freely to the mucous membrane, does not act, as has been supposed, by burning, or by a destruction of textural matter: it forms, immediately, an union with the albumen, and other secretions of the mucous lining, and this compound, thus formed, defends the living tissue from the action of the caustic; whilst it operates to produce a most favorable change, in the vital actions of the part."†

With respect to the method of applying the solution, we quote our author's observations in full, p. 196.

"In the treatment of laryngeal disease, by the direct application of the nitrate of silver to the diseased surface, I have employed, ordinarily, a solution of this substance, of the strength of from two to four scruples of the nitrate, to an ounce of distilled water. When, however, there are found extensive ulcerations of the epiglottis, or about the opening of the larynx—ulcerations which it is desirable to arrest at once—I have not hesitated to apply directly, to the diseased parts, a solution of double the strength of the last named. But one or two applications, only, of a medicine of this power should be made, at one time; ordinarily, however extensive the lesions may be, it will not be necessary to employ a solution of greater strength than one composed of four scruples of the salt to an ounce of water. On the other hand, it has been found, that one of less strength than of from forty to fifty grains of the nitrate to an ounce of fluid, will have but little effect upon a diseased mucous surface, where ulcerations exist.

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* Travels in Europe and the East. By Valentine Mott, M. D., pp. 83-4.

† The Elements of Mat. Medica, &c. By J. Pereira, M. D., Vol. I., p. 587.

"In cases in which it becomes necessary to cauterize the interior of the laryngeal cavity, the aperture of the glottis should not be passed at once; the part should be *educated*, by applying the solution daily, for several days, to the faucial and pharyngeal region; to the epiglottis, and about the opening of the glottis.

"Proceeding in this manner, that exquisite sensibility which belongs to the lips of the glottis, is, in a good degree, overcome, and the instrument may then be passed into the larynx, without producing half the amount of that irritation which its introduction below the epiglottis would have awakened at first.

"The instrument which I have always employed for making direct medicinal applications into the cavity of the larynx, is one composed of whalebone, about ten inches in length (with, or without the handle, as represented in the plate), curved at one end, to which is securely attached a small, round piece of fine sponge.

"The extent to which the rod is to be bent, must be varied according to circumstances; for the opening of the glottis is situated much deeper in some throats, than in others; but the curve which I have found, suited to the greatest number of cases, is one which will form the arc of one quarter of a circle, whose diameter is four inches. (See plate vii., fig. 1.)

"The instrument being prepared, and the patient's mouth opened wide, and his tongue depressed, the sponge is dipped into the solution to be applied, and being carried over the top of the epiglottis, and on the laryngeal face of this cartilage, is suddenly pressed downwards and forwards, through the aperture of the glottis, into the laryngeal cavity.

"This operation is followed by a momentary spasm of the glottis, by which the fluid is discharged from the sponge, and is brought into immediate contact with the diseased surface.

"Every physician who has been present when this operation has been performed—and a large number have witnessed it, from time to time—has manifested much surprise on observing how little irritation has been produced by the introduction of the sponge.

"If the patient, on opening his mouth, take a full inspiration, and then be directed to breathe gently out, at the moment in which the sponge is introduced, the irritation, caused by the application, will be much less than when this caution is not observed. The fact, indeed, has been fully established, by repeated experiments, that the introduction into the larynx, of a sponge, saturated with a solution of the crystals of nitrate of silver, of the strength of forty, fifty, or even sixty grains of the salt, to the ounce of water, does not produce, ordinarily, as much disturbance as is caused by the accidental imbibition, into this cavity, of a few drops of tea, or even of pure water!

"In the topical treatment of the follicular disease, it will be found, that all larynges cannot be entered with the same facility. Indeed, in some instances, where œdema of the epiglottis, and of the arytenoid cartilages, has existed, I have found it very difficult, in making the first attempt, to pass the sponge of the probang through the aperture of the glottis."

Had we space we should be pleased to quote the writer's observations on excision of the uvula and the tonsils, and on the topical treatment of follicular disease when complicated with chronic laryngitis and tubercular phthisis. We cannot, however, pass over that portion of the work relating to the use of the caustic in acute laryngitis.

We would direct the special attention of the profession to this point. The case given by Dr. Green (see last vol. of the Journal, p. 235) is one in which, from the detail of the symptoms, no one would have expected any other than a fatal result. We have heard, moreover, of other cases, presenting all the appearances of true croup, where the same application has been followed by a like success. We are familiar with the beneficial effects of the nitrate of silver in arresting acute inflammations of the mucous membranes of the urethra, the fauces, and the eye, when properly applied; and its action in erysipelas is also well known. There seems, then, every reason to anticipate a similar good effect in laryngitis.

The general remedies employed in the treatment of follicular diseases are, nitrate of silver, iodine, mercury, prussic acid, sanguinaria, and muriate of ammonia. With respect to iodine, Dr. G. remarks:

> "In the administration of iodine, in follicular disease, I have found, almost invariably, a specific effect produced upon the organs of secretion by the use of the medicine. For some time after commencing the remedy, an increased quantity of viscid mucus is thrown off, by the diseased glandulæ; and the patient often complains of a disagreeable taste, produced by the morbid secretions, from the faucial and pharyngeal membrane; and, in some instances, the irritation of the throat is, at first, increased by this salt. After a while the secreted fluid is diminished in quantity, becomes bland, and is of a healthier quality, while the lining membrane presents an improved condition. Equally salutary are the effects produced, ordinarily, on the secretions of the digestive organs, by the use of iodine.
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> "The iodide of potassium, I have generally considered as the best preparation for administration, in disease of the mucous follicles. Although the constitutional effects of iodine of potassium are very analogous to those of iodide, yet it may be given in larger doses, and for a longer period, without producing disorder of the system, than the free iodine. When indications of a scrofulous diathesis are present, in any case, it will be preferable, and will prove more efficacious, to exhibit the two preparations in combination."

As to the use of mercury, our author thus speaks:

> "When there exists, in connection with follicular disease, a deranged condition of the digestive organs; or a diseased, or congestive state of the hepatic system; mercury, in some of its forms, will prove an invaluable remedy. In the treatment of tubercular affections, and in all forms of laryngeal disease, most writers consider calomel as the most efficient and useful medicine of all the preparations of mercury.
>
> "In these cases of follicular disease, when the symptoms indicate the presence of a chronic thickening of the lining membrane of the laryngeal cavity, calomel, administered to the extent of affecting the mouth, as recommended by Dr. Porter, is, undoubtedly, under these circumstances, the most appropriate for exhibition; but where the general glandular system is involved in the morbid action—or even when some forms of pulmonic lesions co-exist with the follicular disease, I have found, in these complications, the bi-chloride of mercury, the most efficient, and altogether the best preparation of this mineral.

"In hepatization of the lungs, says Dr. Pereira,[*] the solid matter, deposited in the air-cells, is often absorbed, and the cells rendered permeable to air by the use of mercury.

"The bi-chloride of mercury may be given in doses from one twelfth to one sixth of a grain; and is best administered in the form of pills,[†] made with crumbs of bread, or combined with the extract of conium, or hyoscyamus; the best time for exhibiting which is after meals.

"In irritable subjects, opiates should be conjoined with it."

The muriate of ammonia, so much employed by the Germans, has proved, in Dr. G.'s hands, a valuable remedy. The following embrace the substance of Dr. G.'s experience as to its use in this affection.

"In combination with other remedies, I have frequently administered the muriate of ammonia, in follicular disease, when this affection has been complicated with sub-acute inflammation of the mucous membrane of the air-passages. In this form of the disease—namely, where the bronchial and pulmonic tissues are involved in the glandular affection, and when a troublesome cough is present, I have found the following combination prove valuable in allaying irritation, and in promoting expectoration:

"℞. Murias Ammon. ʒss.
"Scillæ pulv.
"Digitalis pulv. āā ℈j.
"Opii pulv. gr. x.

"Fiat massa, in pilulas triginti dividenda; quarum capiat unam ter in die."

The appendix of the work contains several letters from physicians, relative to the practicability and efficiency of making caustic topical applications to the internal surfaces of the larynx,—in relation to which a considerable degree of scepticism has formerly existed in the minds of some members of the profession,—but which, we doubt not, has by this time been dispelled. Dr. G. deserves, as we think, great praise for his perseverance under opposition, and many obstacles, in establishing the topical treatment of laryngeal disease on a firm basis. Although not the author of this mode of treatment, Dr. G. scarcely deserves less praise than if he were; for to him alone, we may say, are we indebted for first carrying it into extensive and successful operation, and pointing out the cases and circumstances under which it is likely to prove beneficial. In relation to the merits of the work which we are noticing, we can speak in terms of nearly unqualified commendation: it is certainly in advance, in many respects, of anything hitherto published, concerning this important class of affections; and both as regards arrangement, literary execution, and soundness of pathological and therapeutical views, we believe it will take rank among the ablest treatises of the kind in our language.

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[*] Elements of Mat. Med., Vol. i., p. 194.

[†] The following is the formula of Dzondi of Halle, who is a great advocate for the use of the bichloride of mercury:—℞. Hydrarg. chlo. corrosiv. gr. xii. Solve in aq. distil. q. s.; adde Mica Panis Alba, Sacchari Albi āā q. s. ut f. pilulæ numero ccxl.

Of these pills—each of which contains the twentieth of a grain of the mercury—two may be given night and morning.

I have been accustomed to prescribe the following formula:—

℞. Hydrarg. chlorid. corros. gr. iv.
Extract. conii ℈ij.
Misce; et in pilulas quadraginta divide.

Should these pills—one of which may be given night and morning—irritate the mucous membrane of the stomach or bowels, one fourth, or one half of a grain of opium may be combined with each pill.

We think it probable that Dr. G. will be considered by many as over-estimating the value of topical treatment in this disease, and as undervaluing general remedies; but we see no evidence of this in the present work; nor do we find that any extravagant or irrational expectations are held out as to what it may be expected to perform in pulmonary, tubercular, and other serious complications. Dr. G. has been wisely guarded on these points, preferring to wait for future experience to confirm or disprove the results of past observations. Our author, so far as we are acquainted with his views, does not hold the opinion that topical applications to the larynx will prove ultimately remedial in cases of pulmonary pthisis, but that they tend to allay laryngeal disease, and thus mitigate the sufferings and prolong the life of the patient. That such is their tendency, we can bear our testimony from the results we have witnessed, not only in our own practice, but in cases in which we have been in consultation with Dr. G. Some of these are recorded in the work under review.

There is one point of no great moment, perhaps, which would seem to require a word of explanation. Dr. G. remarks that it has been stated in some of the medical journals, by which, we understand, reference is made to our own, that, in applying topical remedies to the larynx, he has done so "after the manner of Trousseau and Belloc; but that so far from this being the case, he was in the habit of resorting to this treatment nearly two years before he had even heard of these authors; and that he derived the suggestion of making topical applications to the larynx, from the late Dr. James Johnson, Editor of the Med. Chir. Review." Dr. G., therefore, remarks, that so far as he is concerned, he is under no obligation to these authors, although he claims no credit for originating the practice himself.

Now, when we reflect that the work of MM. Trousseau and Belloc was published in Paris, in May, 1837, and that it was reviewed by Dr. Johnson, in his Journal for October, 1837 (p. 50, *Am. Ed.*, and for Jan., 1838, p. 393) we think there cannot remain a shadow of doubt that Dr. Johnson derived the "suggestion" which he made to Dr. G., in the summer of 1838, in relation to cauterizing the larynx, from the work in question, which he had recently perused for the purpose of analysis. It matters not, as it seems to us, whether Dr. G. derived the suggestion primarily, or second-handed, from MM. T. and B.; in either case, the credit of originating the practice, belongs to them. Moreover, on p. 195, Dr. Green remarks:—"To MM. Trousseau and Belloc belongs the honor of having been the first to prescribe and employ topical medications in chronic diseases of the larynx." We have no manner of doubt that Dr. G. practised this mode of topical treatment of the larynx, as he states, before he had heard of MM. T. and B.; but we also believe he never would have done so, had not these authors published their work prior to 1838, or the time when Dr. G. had his interview with Dr. Johnson.

In conclusion, we may remark that the work is got up in the best style of art; clear type, white paper, and beautifully executed colored plates, representing different forms of follicular disease and uvular enlargement, render it attractive to the eye, while its contents commend it to the notice of the practical physician. We hope it will receive, as it richly deserves, the patronage of the entire profession.

ART. XVII.—*Lectures on Natural and Difficult Parturition.* By EDWARD WILLIAM MURPHY, A. M., M. D., Professor of Midwifery, University College, London; Obstetric Physician, University College Hospital; and formerly Assistant Physician to the Dublin Lying-in-Hospital. New York, Saml. S. & William Wood. 8vo., pp. 281. 1846.

IN the outset of professional life, especially in this country, it must very often be the case, that a medical man has no opportunity of putting to the test, those precepts in Midwifery which have been taught him in the lecture-room; and in consequence, by the time he begins to be called upon as an obstetrician, he has forgotten all but the most obvious truths. If he consults his books, he finds for the most part but meagre general directions, and as a little experience tells him that he can do pretty well in ordinary cases with the indefinite knowledge he already possesses, he is very apt to give no more attention to the matter. From this cause results a great deal of bad, because slovenly, obstetrical practice, as every one knows who is frequently called in consultation in such cases.

This is an evil which the book before us will, we think, do much towards remedying. It is a reprint of the lectures on Natural and Difficult Parturition, delivered in University College, London. It does not profess to embrace the whole subject of Midwifery, and therefore the author has been able to treat the subjects he has selected more in detail. We know of no work in which the process of natural labor is treated of in a more satisfactory manner. All the little details of practice, an observance of which shows the difference between the accomplished accoucheur and the blundering ignoramus, are dwelt upon with minute particularity. Dr. Murphy belongs to a school of obstetricians which we believe to be the best in the world, that of Dublin, where the policy of "non-interference" is maintained and practised, to an extent which would surprise some of our tyros who have been brought up in the more "meddlesome" practices of the French authors, or even in those of our own justly distinguished Dewees.

The first two lectures are occupied with the anatomy of the pelvis, and the measurements and deformities of this part of the bony system. The author dwells more than is usual upon the measurements of the *cavity*, and, we think, to good purpose. The mechanism of parturition occupies the next two lectures, including a clear view of the different positions of the head, and the mode of distinguishing between them. This is a thing that few practitioners pay sufficient attention to, being satisfied with ascertaining that the head is coming down.

The proper management of Natural and Difficult labors, and an account of the different obstetrical instruments, with directions for their use, comprise the remainder of the volume, excepting that at the close the author has arranged in the form of aphorisms(some of them taken from Denman) the practical portions of his work.

The directions given by Dr. M. for the management of natural labors are eminently sound and judicious. We could have wished, however, that instead of cautioning his hearers against pulling *too much* at the funis, he had insisted upon their not doing so at all. We know of no case in which it is necessary or desirable to do this, and if the principle were once established that it was never to be done, we have no doubt that a good many hæmorrhages and other accidents incident to leaving portions of the membranes in the uterus, &c., would be avoided.

Of the mode of application of the forceps, vectis, and perforator, and of the cases in which they are required, the author speaks at length. He considers the vectis as most useful in cases where the head is delayed at the outlet, in consequence of want of power in the uterus to overcome the resistance of the perineum, and gives full directions for its use, deeming it less dangerous to the perineum than the forceps. It may be so in skilful hands, but we are inclined to think it would be better if the vectis were altogether discarded as an instrument of *extraction*. Its use in changing the position of the head in some cases is undeniable.

Speaking of the use of the forceps, Dr. M. says, "When the forceps is applied, it is well to dislodge the head from its situation in the first instance, because it constantly happens in these cases of arrest some accidental displacement of the head is the cause of difficulty, which the uterus cannot alter; but when the head is relieved, it will glide into the correct position, and may be delivered without difficulty."

He advocates a more frequent use of the perforator than has generally been thought necessary, both when the child is known to be dead, and when, though living, its birth alive would be of very doubtful possibility, and of great danger to the mother. There can be no doubt that in many cases where the delivery *might* be effected with the forceps, this proceeding would be attended with so much risk to the mother, and afford so little prospect of saving the child's life, as to justify, if not require the operation of perforation. Our limits forbid our discussing this question at length, and we must therefore refer to the book where the reasons *pro* and *con* are very fairly and clearly stated.

We hope that at some future time Dr. Murphy will favor the profession with the substance of his teaching upon the other topics in Midwifery which are not treated of in the present work, regarding this as among the most valuable books yet published on the subject.

S. C. F.

Art. XVIII.—*Tenth Annual Report of the Trustees and Superintendent of the Vermont Asylum for the Insane.* Sept., 1846. 8vo., pp. 8.

We learn from this Report, that the buildings of the Vermont Asylum now afford accommodations for 300 patients; as large a number, say the Trustees, and in which opinion we fully agree, as can be properly taken care of in one Asylum.

"During the last three months," says the Report, "the number of patients has varied from two hundred and ninety to three hundred. At no time has there been more than three hundred in the Asylum. At the present time there are two hundred and ninety-one. As the buildings are so nearly full, all persons out of the State and wishing to place their friends in the Asylum, are requested to make previous application to the Superintendent or one of the Trustees.

"The Institution has been very successful in its operations the past year. A greater number have enjoyed its benefits, and a greater number have recovered, than during any previous year. The whole number has been four hundred and sixty. One hundred and ninety-seven have been admitted; one hundred and sixty-nine have been discharged;—leaving two hundred and ninety-one in the Institution. Of those discharged, ninety-five have recovered.

"With the increase of the appropriation for the insane poor, there has been an increase of beneficiaries. One hundred and eighty-eight have been assisted by the State the past year. Of these, seventy have been admitted, and sixty-five discharged; leaving one hundred and twenty-three beneficiaries in the Asylum. Of those discharged, forty-one have recovered, fourteen have not recovered, and ten have died. Of those who died, several were brought with fatal diseases upon them; requiring so much attention as to make it expensive keeping them properly at home."

Notwithstanding the extreme cheapness of board at this Institution,* we perceive that the income for the last year has exceeded the expenditure, by nearly $600. On this subject, the Superintendent, Dr. Rockwell, remarks:

"We rejoice in the experiment of lessening the expenses by increasing the number of patients. We find by experience that much greater facilities for comfort and restoration can be afforded with our present number, than when the expenses were nearly twice the present terms, with a small number of patients. The Legislature, by furnishing the means for erecting our buildings, have conferred a great benefit on the people of this State, who live very independently and comfortably while their families are in health, but are obliged to make great sacrifices when one of their number becomes insane. In such cases, they immediately look to the Asylum as the best situation for the comfort and restoration of their friends, and at much less expense than would be required to support them at home."

The Report, though concise, is judicious; and ample, we think, for the purposes required.

"The same treatment," says Dr. R., "which has been detailed in our former reports is still continued. The attendants and nurses are procured from respectable families, and none are retained except those who are kind, intelligent, faithful, and honest. We live in a section of the country particularly favorable for procuring such assistants, and it is not too much to say that the attendants of this Institution are not inferior to those of any other Asylum in this or any country.

"Our usual modes of employment and amusement are still continued. An excellent farm is connected with the Institution, on which many of our patients are more or less employed. There is also a flower and culinary garden, which afford much agreeable employment in their cultivation. In the carpenter's and shoe-maker's shop there is much labor performed. The employment to which the patients were accustomed before their insanity, is generally the most agreeable to them, and profitable to the Institution. The consciousness of having been in some way useful to the Institution is very gratifying to many of them.

"We have a healthy climate, and an abundance of pure water. Of the latter, a large quantity is constantly running through the Asylum, and it is accessible at all times in every hall of the building. Its importance to the health and comfort of the inmates is obvious to every one.

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* The terms are $2 per week for the first six months, and $1,50 per week afterwards. When the insanity is connected with epilepsy or paralysis, the terms are $2,50 per week. No charge for damages in any case.

"Whenever there can be detected any physical disease in any part of the human system, it is treated as in other states of the mind. After all, we depend much on the faithfulness of kind and intelligent nurses, wholesome and nourishing diet, neat and well ventilated apartments, the different kinds of bathing, plenty of exercise in the open air, either by riding, walking, or cultivating the garden and farm, and all such agreeable employment of the mind and body, as shall promote health, and call into exercise those faculties of the mind that are unemployed.

"Reading and writing we consider valuable auxiliaries for the comfort and restoration of the insane. The patients are furnished with stationery, and are encouraged to write on all subjects except that of their insanity. The practice of writing improves the power of fixing the attention, and tends to restore the lost balance by directing the mind from its delusions, and calling into exercise those faculties which would otherwise lie dormant. Even when they write on the subject of their delusions they disclose the nature of their insanity more clearly than could be learned in any other way.

"A large number of the patients are fond of reading, and beguile many a weary hour in this manner. The library, now increased to eight hundred volumes, is at their disposal. Like all public libraries, we observe the same regulations relative to the taking out and returning of the BOOKS. It is very seldom that the books sustain any injury at their hands.

"The Asylum Journal continues to furnish much employment by writing and selecting for its columns. It also furnishes a large amount of reading matter, by means of the newspapers which are received in return. We are under renewed obligations to the publishers who have so generously exchanged with us."

We have only space for the following caution, which cannot be too often repeated.

"We would also advise the friends of the patients against their too early removal. During the past year six patients have recovered who have been with us more than two years, and two of them more than three years. Had they been removed after a residence of three, six or even twelve months, it is probable that neither of them would ever have recovered.

"These remarks hold good more particularly in regard to chronic cases. There are few chronic diseases which yield readily to treatment, but most cases require a long, skilful, and judicious application of proper remedies before a recovery can be expected. This is particularly the case in the disease of so delicate an organ as the brain, and requires the most skilful appliances, both medical and moral, for its restoration. After physical diseases, the patient does not attempt any bodily labor, until he has regained in a good degree his former strength and ability. Such is the delicacy of the organization of the brain, and its susceptibility to receive impressions, that greater care is necessary that it should not be unduly excited during convalescence, than any other organ of the human system. It is safer, therefore, that the patient remain until his convalescence is sufficiently confirmed, before he returns to the exciting scenes of human life."

ART. XIX.—*The Writings of Hippocrates and Galen, Epitomized from the Original Latin Translations.* By JOHN REDMAN COXE, M.D., &c. Philadelphia. Lindsay & Blackiston. 8vo., pp. 681. 1846.

WE have here a goodly sized volume, filled with the maxims of two of the early fathers of medicine, whose precepts carried with them for centuries the weight of oracles. We agree with our learned and accomplished author, that it is not creditable to the profession, either of Great Britain or America, that a full translation of both these writers has not yet been given to the English reader, and that so few copies are to be found, even in the original Greek or Latin translations. We hope that the Sydenham Society, if indeed it still exists, will be tempted to give us an English translation of, at least, the more important works of Hippocrates, and in due time, of those of Galen also. In the meantime, we commend the present abstract of our erudite countryman, as in a high degree worthy the countenance and support of the profession.

ART. XX.—*A Practical Treatise on the Diseases of Children.* By JAMES M. COLEY, M. D., etc. Phila., Barrington & Haswell, 8vo., pp. 412.

A FEW years since, our fellow townsman, Dr. James Stewart, wrote and published a work on the Diseases of Children; which was pronounced by Dr. James Johnson, Editor of the Med. Chir. Rev., as the ablest work on the subject ever written in the English language. Subsequently, Dr. Condie, of Philadelphia, published a work on the same subject and on a similar plan, in which no mention whatever was made of Dr. Stewart's work; and now, we have another treatise, which occupies the same ground, but no reference whatever in it, to the publication above mentioned. We shall not attempt to explain how this has happened, for we do not know; we, however, should be surprised to find the work of Dr. S. was wholly unknown to these gentlemen. But it may be said, all this has nothing whatever to do with the merits of the work under consideration.

The Treatise of Dr. Coley claims to be more comprehensive than any of the kind extant, but, we think, without any just foundation. The Author is mistaken in saying that there is no work which treats of all the diseases incident to children, and their appropriate surgical as well as medical treatment; for several of them, particularly Stewart's, Condie's, and Eberle's, do so, not to name some of foreign origin. As a general rule, we think, Dr. Coley prescribes too much medicine and in too large doses, and is too fond of blood-letting, in treating the diseases of children: we have been led to adopt a milder course with equal, and often greater benefit. Dr. C. speaks of employing gargles in cases of mercurial salivation in young children; we have been so fortunate as not to meet with this accident in children, and we have been so unfortunate as to be unable to teach such little patients how to gargle in cases where it might have proved useful. We protest, moreover, against the practice of giving children calomel on every occasion, as if this were a sovereign and universal specific.

But notwithstanding some blemishes, we are, on the whole, pleased with Dr. C.'s work; it embraces the results of a long life devoted to the practice of medicine, and displays a considerable amount of research and observation. Still, it is inferior, in our judgment, to some of the treatises on the same subject, to which we have already referred.

Art. XXI.—*A Conspectus of the Pharmacopœias of the London, Edinburgh, and Dublin College of Physicians, and of the United States Pharmacopœia: Being a Practical Compendium of Materia Medica and Pharmacy.* By A. T. Thompson, M.D., F. S. L. 4th American Edition. Edited by Charles A. Lee, M.D. etc. New York: Samuel S. & William Wood, 261 Pearl st. pp. 313.

The Conspectus of Dr. Thompson is too well known to need recommendation at this day. The rapid sale of three large American editions shows the estimation in which it is held by the profession, and the demand for it is constantly on the increase. It is a complete Cyclopedia of Materia Medica, Pharmacy, and Toxicology,—a digest of all the Dispensatories of Great Britain and America, brought down to the present moment. Fortunate may that physician deem himself to be, who, unable to carry everything in his head, can carry it all, and a little more, in his pocket.

Art. XXII.—*Dr. Hooper's Physician's Vade-Mecum: or a Manual of the Principles and Practice of Physic. Considerably enlarged and improved, with an outline of General Pathology and Therapeutics.* By William Augustus Guy, M.B., and with Additions by James Stewart, A.M., M.D., &c. New York. Harper & Brothers. pp. 541. 1846.

This book claims to be a manual on the principles and practice of physic, when in fact by the additions of the English and American editors, it contains as much if not more than many of our voluminous treatises. As a work of reference for the student and practitioner, it is admirably adapted to the end designed. It contains in a condensed form all the more important practical facts of the larger works, and the more recent monographs on the different subjects of Pathology and Therapeutics. Completely divested of theory as the work is, we would most heartily recommend it to the attention of the profession, believing as we do that the work before us is one among the few whose claims the author and editors have increased by the complete fulfilment of their promise.

Art. XXIII.—*Jarvis's Lectures on Fractures and Dislocations, together with Concise Instructions in the use of the Adjuster.*

Many of the readers of the New York Journal of Medicine are already acquainted with the merits of Dr. Jarvis' apparatus for reducing fractures and dislocations, from frequent editorial notices, as well as a full description of it, and the principles which are to regulate its use, furnished for our pages by the ingenious inventor himself. (See Vol. I., p. 140; Vol. II., p. 133; Vol. IV., V., etc.) Recently Dr. Jarvis has exhibited his instrument to the first surgeons of Europe, and received the highest testimonials as to its merits. Among those who have furnished such testimonials we observe the names of Sir Benjamin Brodie, S. Cooper, R. Quaine, W. Ferguson, R. Keate, Thomas Hodgkin, E.

Stanley, etc. These names, associated with those of Mott, Parker, Mutter, etc., in our own country, must satisfy the profession of the high value of the invention. During the last year Dr. Jarvis has delivered, by invitation, a course of five lectures on Fractures and Dislocations, in the Royal Westminster Ophthalmic Hospital of London, explaining the new modes of treatment, founded on anatomy and physiology and the laws of mechanics, which will compare, as respects originality of views, soundness of physiological, pathological and mechanical principles, with the very best surgical writings extant. The inventor claims, and justly as we believe, that by means of this instrument the surgeon has at his command an extending and counter-extending force, equal to that of twelve men, all or any part of which he can apply to any limb at pleasure, and yet the limb remain perfectly moveable and free from manipulation. For a more particular description we refer to former volumes of our Journal. The instrument is manufactured by Messrs. H. & G. Kellogg, of Derby, Conn., to whom applications are to be made.

Art. XXIV.—*The Trees of America, Native and Foreign; Pictorially and Botanically delineated, and scientifically and popularly described; being considered principally with reference to their Geography and History, Soil and Situation; Propagation and Culture; Accidents and Diseases; Properties and Uses; Economy in the Arts; Introduction into Commerce; and their Application in useful and ornamental plantations: Illustrated by numerous Engravings:* By D. J. Browne, author of the Sylva Americana. New York: Harper & Brothers. 1846. 4to. pp. 520.

This beautiful work on the Forest Trees of America, is the most complete and extensive in its character of any hitherto published on this interesting subject. In preparing materials for it, the author has traversed various parts of North and South America, Africa, Europe, the West Indies, etc., where he availed himself of the advantage of not only verifying and correcting the observations which have been made by others on the trees of those countries, but examined them under various conditions, in a state of nature, as well as in nurseries and collections of the curious. The result is a work of rare interest, displaying great research, and an intimate acquaintance with the entire field of Arborology.

This work is one which has especial claims on the patronage of medical men, scattered as they are over every part of the country, and devoted more or less to agricultural, horticultural and botanical pursuits, on all which branches the work is replete with useful information. The pictorial illustrations, we are informed, have been made directly from drawings after nature, or from accurate delineations already in existence, one figure representing the general appearance of each tree, and another of the leaf, flower, fruit, &c., in order that the descriptions may be better and more clearly understood, and to render their identity more striking. Our limits in the present number preclude a more detailed notice, which we had intended: we shall hereafter give a more particular account of the work, especially as relates to the medicinal properties and uses of the different trees and shrubs described.

PART THIRD.

American Intelligence and Editorial.

Medical Education and Reform.—We surely need but refer our readers to the judicious and able lecture of Dr. Watson in the present number of our Journal. It is not only replete with valuable information and good sense, but is written in a spirit of candor, which must commend it to the approbation of every ingenuous mind. We cannot but augur the most favorable results, when we find the leading members of the profession actuated by such just and liberal sentiments; and we trust the time is not distant, when the cultivators of medicine will no more be denounced for holding opinions not universally received, or which may apparently clash with the private interest of a few. With a spirit of toleration and internal harmony, the medical profession of this country have a brilliant path of prosperity opened before them; the only danger is, that sectional, college, or state jealousies may spring up which may tend to prevent that union, so desirable in accomplishing the great reforms, demanded by the spirit and progress of the age.

But when we consider the unexampled and, we may add, unexpected harmony, which characterized the proceedings of the late National Medical Convention which met in this city, and the entire unanimity with which all our colleges, state, county and other local Medical Societies, are appointing delegates to the next Convention which is to assemble in Philadelphia on the second Wednesday of May next, we feel fully warranted in the belief, that the most auspicious consequences are to result from the present agitation and movements in the profession; and that the time is not distant, when the question will no longer be mooted, whether the medical men of America are really inferior in scientific, literary and professional acquirements to those of Great Britain or the Continent.

We rejoice to be permitted to take any part, however humble, in urging forward these movements, believing that nothing is more to be dreaded than stagnation and inertia; and whatever may be the sacrifices which we may personally be called upon to make, we shall give our cordial support to all measures calculated to enhance the usefulness and respectability of the profession, by raising the standard of medical education, and especially by urging the adoption of such preliminary training and acquirements, as may furnish a reasonable security for the usefulness and success of those who enter upon medical study. With these remarks, we commend to our readers the following communication from our respected and able correspondent, Dr. N. S. Davis, without, however, intending to endorse all his views and opinions:—

Mr. Editor:—

In the September number of your excellent Medical Journal was an article from the pen of C. B. Coventry, M.D., commenting on certain resolutions adopted by the N. Y. State Medical Society, at its last annual session; in the course of which allusion is so frequently made to myself, that I trust your readers will pardon me for saying a few words in reply. Perfect fairness and a rigid adherence to truth constitute the beauty of all controversies. Setting up a man of straw to show our bravery in knocking him down or attributing to others sentiments which they have never uttered, are marks neither of candor nor ability.

Prof. Coventry commences the article to which I have alluded as follows, viz: "On looking over the 'Transactions of the Medical Society of the State of New York,' for 1846, I was surprised to find that certain Resolutions which were appended to a report made to the Society the previous years by N. S. Davis, as chairman of a committee, were adopted by the society, and a committee appointed to submit them to the county societies for their approbation. The two important resolutions and the only ones which I shall notice, are the following:" Here follow the resolutions quoted from page 189 of Appendix to the "Transactions" for 1846; and which the foregoing quotation represents as having been appended to a report of mine. Now it so happens that neither of the resolutions referred to was either written, presented, sustained, or voted for by me. And what is still more surprising, on the very same page from which Prof. Coventry quotes the resolutions, my vote stands recorded *against* the very first clause of the first resolution. And yet he not only represents them as mine, but throughout the whole article, looks to a report made by me one year previous for the reasons of their adoption. Would it not be well for the Professor in "looking over the Transactions" again, to *look* with a little more *care?* The truth is, that the resolutions alluded to were adopted as substitutes for those presented by myself one year previous; and I disown them now, not from want of respect for the Society by which they were adopted, but to show that Prof. Coventry, like some others, has exercised the right of commenting with great freedom on the opinions of others, without taking the trouble to learn what those opinions were.

Again, I am represented as referring all, or nearly all, the evils under which the profession labors, to the want of proper action on the part of the Medical Colleges; and with being personally hostile to such institutions; or if not *hostile*, Prof. Coventry exclaims: "Save us from such friends." Now two short quotations from the same report to which the learned Professor so often alludes, will fully answer both these charges. Thus I say in the report: "With this question, and this alone, resting on the mind of the student, together with the adoption of the standard of medical education recommended in this report, we have no fears that our *own* medical institutions will be abandoned for those of any other state or nation. On the contrary it would *compel many* to enter those institutions who are now licensed by County Societies without ever seeing a subject dissected or knowing enough of chemistry to tell the composition of Epsom salts." And in another place: "Perhaps there is no *greater error* in our present system, than in the relation between the preceptor and his pupil. The former, instead of having the latter always with him, on all proper occasions, to witness disease in all its forms, to impart practical instruction, to infuse into his mind, his own thoughts, feelings, and lofty aspirations; and to guide him in tracing with the dissecting knife in his own office, not only every part of man, but the whole animal kingdom; thus acquiring the habit of patient, persevering investigation, without which excellence can never be attained in medicine; he barely answers the purpose of a scanty and often ill-selected library, leaving the student to grope his way over the alluring fields of medical science, with only the transient light of the medical college to illuminate his path. *We* by no means *undervalue* the *importance* of medical instruction in *colleges.* But we hold most firmly to the position, that the surest way to fill our colleges with intelligent students, is to show them clearly the importance of thorough scientific investigation, by practically initiating them into every branch or corner as it were, of the whole field of medical science." Is here any "crusade against our institutions?" any hostility to medical colleges? It is true, that in the report alluded to, I represent the examination of students, both by the Boards of County Censors and the Professors in Medical Colleges as imperfect and insufficient; and that such Professors are liable to be influenced by the same motives and considerations as other men. I also intimated that sixteen weeks is far too short a period for the student to travel profitably over the whole field of medical science. And has Prof. Coventry, or any one else, shown these representations to be false? The simple truth is, that so far from being an enemy to medical colleges, I have uniformly, in all I have said and written on the subject, aimed at the adoption of such a standard of attainments as would necessarily compel every student to spend more or less time in these institutions. If I have erred in judgment on this point, it is the part of candor to show that *error*, instead of picking a sentence here, and another there, detached from their natural connection, apparently for the purpose of holding me up as the reviler of my profession and an enemy to its institutions. But we are told in the article under review that "a wise physician does not prescribe for his patient on vague rumors, but first ascertains whether his patient is sick, and the nature and character of the disease," and straightway complains of me for not having discharged the duty of *Curator* in attending the public examinations, at the annual commencement in Geneva College, and thereby informing myself of the real character and qualifications of the Alumni of that institution. Certainly no one would take more pleasure than myself in discharging this duty; but not having enjoyed fifteen or twenty years of lucrative practice, and professional status in two or three medical colleges, I have hitherto found it very inconvenient to sustain the expense of travelling a hundred miles, and one or two weeks' absence from home, for the purpose of *listening* to one day's examination of a class of students who have previously been separately examined by the same questioners, and voting yes, or no, on their qualifications. Besides, I had ever supposed it to be the duty of "a wise physician" to make a direct personal examination of his patient, instead of relying on the questioning of his nurse; so much for personal considerations.

Let us now turn to the doctrines or sentiments contained in the article under consideration. And first, as to the *necessity* of Reform. We are told by Prof. Coventry that the present medical organization of this State has been in existence forty years; and that through all that period, the profession has enjoyed a high degree of prosperity. Hence he unites with the venerable and ever to be remembered Dr. John Stearns of New York, in cautioning the profession against innovations of any kind. Now so far from there being soundness or force in this reasoning, the very positions assumed prove the necessity of reform. For if the main features of the present system were adapted to the condition of the profession forty years ago, and it be true that a high degree of prosperity has been enjoyed from that day to this, such prosperity necessarily implies a change of condition; and such change of condition requires corresponding changes in the system. Let us look at the facts. We are told, in the language of Dr. Stearns, that previous to the adoption of the present organization he "found the profession in the country towns, with few honorable exceptions, *destitute* of medical science, and so discourteous in their professional intercourse and consultations as to *merit* the *contempt* of the respectable portion of the community." (I wonder if there was in those days no one to "stand up *alone*, in the broad expanse of America," and *defend* the profession against so *slanderous* an imputation.) There was scarcely a well organized medical college in the State, and only very few in the nation. The facilities for general education were limited and meagre compared with those of the present day. And whoever chose entered on the practice of medicine without either examination or special legal authority. In such a state of things, no one will deny to Dr. Stearns the highest degree of human wisdom, in adjusting the organization of 1806 to the then existing wants of the profession. The formation of State and County Societies immediately brought order out of confusion; systems of medical ethics were adopted to regulate professional intercourse; and the colleges being few in number, and comparatively little patronized, a very large portion of the candidates for admission into the profession were examined and licensed by the County Censors, and the fees derived therefrom appropriated to the purchase of County libraries; a new and universal spirit of inquiry was aroused, and as time passed on the study of practical anatomy, physiology and chemistry, became better appreciated, and in the same ratio the colleges were more frequently attended. And what has been the result? We have now more medical colleges in this State than existed in 1806, in the whole Union; and more students annually receive from them the highest honors of our profession. In the same proportion the number licensed by County Societies diminished, until, according to the best data we have, they now license on an average of less than *one* student apiece once in *two* years; and consequently no funds of any importance are derived from this source. In the meantime, some of the Societies have failed to meet so long, that they are practically dead; while others still meet once or twice a year and go through with the form of electing officers, among whom is generally a delegate to the State Society; and a very few do a *little* more than this. Now I appeal to every observing member of the profession, to say if this brief sketch of its progress under the present organization, is not correct.

Indeed, if we look into the published Transactions of the Medical Society of this State for the last year, we shall find only *eleven* students licensed by the whole eighteen Societies there reported, and the year previous only *eight* by *seventeen* Societies; and among these were included the most active and efficient Societies in the State. If these things *are* so, what becomes of Dr. Coventry's main position, that because we have prospered under the present system forty years, therefore, reform is unnecessary; or of Dr. Stearns' prediction, that the doing away with County Censors, would be cutting the main "ligament" that binds the whole organization together, and sending it again into chaos? Verily, the licensing of *one* student apiece once in *two* or *three* years, by our County Societies, constitutes a very *frail ligament* on which to rely for the support and efficient action of the whole medical organization of the Empire State. To *cut* such a ligament would be entirely useless; for it is already *atrophied* and powerless. So much so, indeed, that a majority of the Societies represented in the State Society during the last two or three years have voluntarily offered its entire surrender. And whoever looks at our neglected County libraries: the comparatively small number attending the regular meetings of the County Societies; the total failure of some of them; and the grave discussion now going on in others, whether it is not best to make a formal surrender of their charter? will be satisfied that their universal dissolution is near at hand, unless some *reform* is adopted by which they are re-animated with new vigor and efficiency. But let us turn from our internal organization, to a momentary glance at our medical colleges. I have already shown that while the adoption of our present organization brought order out of chaos, refined the intercourse among medical men, established County libraries, excited a spirit of inquiry, and a better appreciation of the study of anatomy, physiology, &c., it has gradually and almost completely transferred the whole business of teaching and licensing students into the medical colleges. Hence arises the question, whether these institutions have actually increased their facilities for communicating knowledge in proportion to the increase of their patronage? That they have increased in *numbers* sufficiently rapid, no one will deny; and that they have also improved their libraries, their museums, and their means of illustration and demonstration, there can be no doubt. But have they, at the same time, done the more important work of *extending* the *period* of their instruction, of enlarging the scope and increasing the fullness of their several courses, and exciting higher and wider and more perfect attainments on the part of their Alumni?

A strict regard for truth will compel a negative answer to this question. For it is well known that *four months* constitute the full period of instruction in nearly, if not quite, all our colleges. And during this brief space of time, six professors urge on the minds of the students as many different branches of medical science, making a field so extensive that to read a single standard text-book on each, in the same space of time, would require the reading of more than forty pages per day. Will any one contend that the human mind can properly digest and treasure up knowledge thus rapidly urged upon it? Certainly not. I might here adduce the statements of the most eminent and experienced professors in this, and almost every other State in the Union, in confirmation of my position on this point, but a simple statement is sufficient to carry conviction to every unprejudiced mind. Again, I must still contend that the conferring on medical colleges, full and unlimited power to admit their own students into the ranks of the profession, is wrong in principle and *liable* to abuse in practice. I know that Prof. Coventry says in reference to this point, "that the practice has been almost universal throughout Christendom for literary institutions to confer their honors on their own students." And that "it was left for the *chairman* of the committee to make the *discovery* that it is wrong in principle," &c. The learned professor must presume very largely on either the ignorance or credulity of his readers, if he expects them to detect no difference between the conferring of mere literary honors, or evidences of attainment, and the granting of degrees that in themselves confer not only important special privileges, but fully admit their possessors to the ranks of an ancient and honorable profession. On the contrary, I think it will be left for *him* to *discover* the first literary institution, either in Christendom or out of it, that ever enjoyed or exercised any such right. I certainly know of none in this country, and I think it will be found that the medical colleges stand alone in this respect throughout the world. From what I have already said, it will be seen that such a reform as will accomplish the following objects is not only desirable, but necessary for the welfare and permanent prosperity of the profession in this country, viz:—

First. The *re-invigoration* of State and County Societies, or in other words, the accomplishment of a more active and efficient internal organization in each State; by which knowledge shall be diffused, medical ethics sustained, and a spirit of active inquiry kept alive throughout the profession.

Second. The adaptation of a judicious standard of *preliminary* education for the young man before he enters on the study of medicine.

Third. The elevation or extension of the medical requirements for admission into the ranks of the profession, and the adoption of a more perfect and efficient system of final examinations.

Fourth. The extension of the period of instruction in all our colleges, and an unconditional requirement that every student shall attend one or *more* full courses in some regularly organized college.

Fifth. The adoption of some measures for greatly elevating and improving the business of private teaching in medicine.

It is thus apparent to all, that the questions presenting themselves are not necessarily those of either favor or hostility to medical colleges or other institutions; but that they are all summed up in this: How shall we retain all the benefits derived from present and former organizations, and still advance onward to a higher standard of honor, excellence and usefulness?

My own views in regard to the particular measures to be adopted in reference to all the topics named, will be given more in detail hereafter.

N. S. DAVIS, M.D.

Binghamton, Dec. 7, 1846.

Correction.—We cheerfully comply with the request of Prof. Dickson, to insert the following letter referring to a statement made by one of our correspondents in our last September No. It is our earnest desire to do justice to all; but when we fail to do so, we trust those who may feel aggrieved will not hesitate to say so.—*Ed. N. Y. Jour.*

Charles A. Lee, M.D., New York,
Editor of the N. Y. Journal of Medicine, &c.

Dear Sir:—

My name is introduced somewhat gratuitously on the 226th page of your September Number, in the following paragraph: "It is but *justice* to say, Dr. Stokel [Dr. Strobel is meant] wrote a book to prove *it* (*Y. F.*) was introduced here, which seemed to materially alter the views of Professor Dickson who was previously the advocate of Non-contagion," &c.

This is not *justice* to me by any means: how unjust will appear from the fact that Dr. Strobel's book contains a letter from me in reply to a request, on his part, that I would furnish him with an "expression of the opinions" that he knew I entertained on the subject; these opinions being unequivocally in favor of the communicability or transmissibility of Yellow Fever. Dr. Strobel's book, of course, was not then published, nor had I seen a single line of the MS. I was aware of Dr. Strobel's views, and mine had been made public, both through the press and in the lecture room, some time previous.

I remain, Sir, very respectfully your obdt. servt.,

SAMUEL HENRY DICKSON.

Charleston, S. C., Nov. 3, 1846.

Owing to limited space, and the length of the letter referred to by Prof. Dickson above, which is to be found on page 126 of Dr. Strobel's work on Yellow Fever, we are under the necessity of giving an extract. The letter is addressed to B. B. Strobel, M.D., and bears date Jan. 14, 1840; in it, Prof. Dickson says: "I believe Yellow Fever to be transmissible or communicable from *one city to another*, provided the general circumstances of the two are similar or analogous; that is, I believe the unknown and obscure cause of Yellow Fever is transportable from place to place, and in a variety of modes."

—

Insensibility during Surgical Operations, by Inhalation.—Much has been said of late in some of our exchanges in reference to this matter. From them we gather that it is a patented preparation, and that the substance used is (in all probability) "an ethereal solution of some narcotic substance;" it is inhaled from a "small two-necked glass globe;" it renders the patient insensible for a period varying from two to forty-five minutes, or more; it is not safe even when administered in a skilful manner to children; serious and almost fatal consequences have followed the inhalation of it by adults possessing susceptible constitutions, all of which render it (when administered judiciously) a limited, dangerous, and uncertain preparation—even supposing it to be presented to the profession in a proper manner, which, we are compelled to say, is not the case. Nor is this all. We are sorry to see many of our brethren, at home and abroad, stooping from the exalted position they occupy in the profession, to hold intercourse with, and become the abettors of, quackery in any form. Such doings are certainly contrary to the ethics of the profession, and should not be tolerated for a moment in any one.

Pathological Society of London.—This society was formed in October last. Its President, Prof. C. J. B. Williams, opened the society by a very able address, characteristic of its author. Among the members present, we noticed the names of Drs. Copeland, Jones, Roget, Bennett, Ramsbotham, Bird, Johnson, Liston, and Dalrymple, all of whom are already known to the profession in America. With such men as these to participate in the proceedings of the London Pathological Society, we expect to see it, ere long, vie with its sister, the Dublin Pathological Society, whose doings are already familiar to the profession throughout the world. It is from such organizations as these, and similar others, that we must look for new light to be thrown upon the study of Pathology, and the intricate mesh-work of disease to unfold itself before the combined talent of the master minds there congregated. The study of true Pathology has but just commenced, in the strict sense of the word; it is but the child of a few years; and with the new aid afforded by Animal Chemistry, and the more general employment of the microscope, we expect soon to arrive at more certain and correct conclusions. Its essential value to the practitioner of medicine no one can question for a moment.

We sincerely hope that the profession in America will not be content to follow in the wake of their English brethren. With the advantages afforded us for the study of disease in all our large cities, containing, as many of them do, numerous large hospitals, we would respectfully urge upon our brethren the immediate formation of societies for the advancement of this most desirable object. The field is ample, the material abundant; why not contribute our mite to the advancement of this department of medical science? It is with pride we notice that the New York Pathological Society has permitted the publication of its truly valuable proceedings, and we shall with pleasure, from time to time, as our space will permit, copy from our able cotemporary its numerous valuable cases.

Medicine in China.—Since the publication of our last number we have received the first Volume of the Transactions of the "China Medico-Chirurgical Society." This Society was formed in May last, at Victoria, Hongkong. President, Alfred Tucker, Esq.; Secretaries, B. Hobson, M.B., George K. Barton, Esq.; Librarian, G. H. Young.

The objects contemplated in the formation of this Society are—

"1st.—The bringing into more intimate intercourse medical brethren in China, for the sake of giving and receiving information on Medical and Surgical subjects.

"2d.—The formation of a Library, where all the best periodicals and the valuable standard medical works of the day can be had.

"3d.—The discussion of topics relating more particularly to the diseases prevalent in China, and to the native Materia Medica."

The meetings of this Society are held on the first Tuesday of each month, and are well attended. Many valuable and interesting papers have been read by the members at the several meetings of the Society. The Introductory Address by its President, "On the Advantages to be gained by a Medical Association, and a Cursory Review of Diseases incidental to Europeans in China," we have read with much satisfaction, and wish that our limits would permit an extended review The address, among other matters, contains a statistical table of the first 1000 patients admitted into the Hospital: out of this number 359 were cases of Dysenteria, 195 of whom died, and 36 remain invalided. This is the disease that makes such fearful havoc among the European settlers. It is estimated that of the whole number of deaths 31.5 per cent. die of this disease. In a future number we shall give our readers a short account of it, with its pathology and treatment. The Transactions also contain several other interesting and truly valuable papers, which reflect great credit upon their authors, and not only upon them but upon the Society as a body; all of which in due time we hope to lay before our readers. Among the other objects that the Society has in view, is the formation of a Medical College where Chinese youths may be educated for the profession. This is a great desideratum in the evangelization of China, and commends itself to the confidence and support of all who feel an interest in the consummation of this most desirable object.

In conclusion, we look upon the formation of this Society as the commencement of a great change in China, not only in its medical, but also in its political and religious history. A vast field lies open before the members of this society, rich and overflowing in materials for observation, the improvement of which will confer upon them the esteem, admiration, and honor of their professional brethren throughout the world. Long may they be blessed in the field of their operations, and in the pursuit of their noble calling.

MEDICAL SCHOOLS IN NEW YORK.—It is with feelings of much satisfaction that we notice the continued prosperity of the Medical Schools in this city. Many causes which it is unnecessary to mention at present, have tended materially to lessen the number of medical students in attendance at the several schools in the United States; and notwithstanding this, there are, judging from observation, at present in this city, as many if not more in attendance than there were at the last session. This fact speaks for itself of the superior advantages possessed and facilities offered by New York over her sister cities in the study of Practical Medicine. We hesitate not to say, that a few years more will see this city the emporium of Medical Science, as it is now that of Commerce, in America it requires not the ken of the profound philosopher to perceive this. It is evident to even the casual observer, that New York is destined, and that too at no distant day, to become the Paris of America. These reflections have forced themselves upon our minds, while we have glanced over and compared the present with the past history of medicine in this city.

BUFFALO MEDICAL SCHOOL.—It will be remembered that in our last No. we noticed that the faculty of this college was fully organized, and that the first course of Lectures would commence on the 24th Feb. next. Since that time we have received its annual circular, from which we learn that every exertion necessary will be made to fulfil the promises held out by the faculty. Students are admitted free of charge to the "Buffalo City Hospital" at such hours of the day as the several medical officers are in attendance; the attending Physician and Surgeon of which hold the respective chairs of Principles and Practice of Medicine and Surgery, in the College.

NATIONAL MEDICAL CONVENTION.—The Faculty of Geneva Medical College have appointed Professors Charles A. Lee, C. B. Coventry, and James Webster, as delegates, to represent that Institution in the next National Medical Convention.

The Faculty of the Medical Department of the Buffalo University have elected Professors F. H. Hamilton, Austin Flint, James P. White, and Geo. Hadley, as Delegates to the National Medical Convention, to assemble in Philadelphia on the second Wednesday of May next.

SICK AT MONTEREY.—Dr. N. S. Jarvis, U. S. A., well and favorably known to many of our readers, writes us from Monterey, Mexico, under date of Nov. 8th, 1846, as follows:

"Our wounded in the hospital are rapidly improving, and we will doubtless, in a very few days, again take up our line of march, to record again, I fear, before it terminates, more cases of wounds and disease, consequent upon the fierce struggles of war. The 3d Division is already ordered to Saltillo, and will leave on Thursday next. Orders have not as yet been issued in regard to the movement of the two remaining Divisions (1st and 2d). There is no doubt, however, that they will unite with the 4th Division now at Camargo, and march to Tampico. I shall probably accompany the last army."

Dr J. promises to keep our readers informed of matters appertaining to the health and diseases of the army.

PROCEEDINGS OF A MEETING FOR THE ESTABLISHMENT OF AN ACADEMY OF MEDICINE AND SURGERY.

A meeting was held on Saturday, Dec. 12th, at 1 o'clock, P. M., at the Lyceum of Natural History, 561 Broadway, in obedience to a call in the public papers signed by VALENTINE MOTT, ALEXANDER H. STEVENS and ISAAC WOOD, as the representatives of the three great Medical Associations of the city, viz., the Colleges and the County Medical Society; the object of which was to ask the co-operation of their medical brethren in an undertaking to elevate the character of our profession—to advance its interests, and to increase its usefulness by furnishing facilities for social intercourse—promoting harmony amongst its members, and the means of mutual improvement. In the prosecution, it being proposed to establish an Academy of Medicine and Surgery, and to provide a permanent place for its meetings.

The meeting was organized by calling Dr. JOHN STEARNS to the Chair, and the appointment of Dr. F. CAMPBELL STEWART as Secretary. Dr. MOTT, in an energetic speech (which it was not our good fortune to hear), stated the objects of the meeting.

Dr. STEVENS then arose, and in an able address, moved the reading of certain resolutions. It was then resolved that these resolutions be taken up, and considered separately.

Dr. MANLEY arose and remarked that the time had come that something must be done to change the character of the profession; that owing to accidental circumstances, but mainly to the rampancy of quackery, the public, he did believe, had but little confidence in our profession; and that if those members of the profession could be brought together, that preferred life to the dollar, this confidence might be restored. This he said to help along the objects of the meeting, of which he cordially approved.

The Secretary then read the following resolution:—

Resolved, That it is expedient to organize an Academy of Medicine in this city, which shall represent if not embrace the great mass of regular practitioners residing here.

Dr. REESE arose for the purpose of strengthening the resolution, which he considered would sufficiently meet the circumstances stated by the gentleman who had preceded him. It offered, in his opinion, the adequate and only remedy to professional degradation. If a line could be drawn between science and roguery, and recognized among ourselves, the public would soon learn who were upon the one side, and who upon the other; if this distinction could be made, everything would be done to redeem the profession from the injuries recently inflicted upon it, and he trusted that it would pass unanimously.

A pause here ensuing, Dr. ISAAC WOOD arose and said that he trusted that the resolution would receive a full discussion, as it was exceedingly important that a free expression of professional sentiment should be had upon a subject of so much consequence.

Dr. MANLEY trusted that if any one present had any objection to the resolution, he would now say so; that it might be out of the power of any hereafter to cavil and say that they had no chance to express an opinion upon the subject.

Dr. A. M. COX desired to have an explicit definition of what was meant by the term regular practitioner; he wished to know whether the mere fact of an individual holding a license or diploma would entitle him to membership, and whether those practising homœopathy would be admitted; because many regularly educated men were practising in a manner opposed to the generally recognized views of the profession.

Dr. MOTT said that it was not in the power of this academic association to prevent those who were graduates, licentiates, orlegally qualified in any way, from joining it, if their course was honorable and legitimate. The Association would not admit irregular men; it was not worth while to designate them: there could be no difficulty in understanding who they were. Any swerving from the path of professional rectitude must be excluded. The least savor and tincture of Homœopathy, said Dr. M., will not be recognized by us of the old school. We must all alter our generation and be educated anew before we can believe (I speak for myself) in the doctrine of infinitesimals. It was never intended that those gentlemen should come into this Association. He said that if any homœopathic gentlemen were present, he thought no offence should be taken by them, inasmuch as our differences of opinion were so great that we could not walk together.

Dr. Stevens observed that the term regular physicians was sufficiently understood, and might be defined hereafter by a board appointed for the purpose.

Dr. Isaac Wood observed that it was not intended to exclude merely irregular practitioners, but all association with irregular practitioners. That membership of this Association would be a *carte blanche* to every one to the confidence of the public.

Dr. Francis thought that the discussion of this subject might be postponed until the Association was organized; that the mark between the regular and irregular practitioner might be made so emphatic and strong as not to be mistaken; the time had come when they ought to be made, and if fully established specific laws could hereafter be adopted, the profession would be placed upon the footing where all must be desirous of seeing it. He trusted the resolution would be allowed to pass unanimously. (Loud cries of question, question.) The first resolution, being again read by the Secretary, was carried without a dissenting voice.

The Secretary then read the second resolution.:—

Resolved, That it is expedient to procure a building to be devoted to the Academy of Medicine, and that shall also be known as a Hall in which the regular members of the profession may meet on common ground.

Dr. Stevens moved that this resolution lie upon the table until the Committee should have reported a constitution and by-laws. Carried.

The third resolution was then read by the Secretary:—

Resolved, That a subscription be now commenced for this purpose.

This being involved in the former, it was passed over for the present.

The fourth resolution was carried unanimously:—

Resolved, That a Committee of —— be now appointed to prepare a Constitution and By-laws.

Dr. Van Rensselaer proposed that this committee consist of five.

Dr. Manley wished that the committee should be large, as it would better represent the sentiments of the profession. A large committee would consult public opinion, and the end would be better answered in one meeting than in five. The discussion had better be cooked in the Committee room, and brought ready to digest before the next meeting. He moved that the Committee consist of eleven. Carried.

On motion of Dr. Stevens, it was resolved that the Chairman of this meeting act as Chairman of the Committee, and appoint the other ten. The Chair then appointed the following gentlemen as a committee, viz., Drs. Francis, Bliss, J. Watson, Griscom, Benjamin Drake, Borrowe, Reese, A. S. Purdy, J. R. Wood, and Tomes. Several persons now objected to the manner in which the Committee had been appointed. And after a desultory conversation, and the loss of a motion to reconsider the resolution authorizing the appointment of the Committee by the Chair, the same motion for reconsideration was renewed by Dr. Stevens, and carried.

Various propositions were then made, as to the manner in which a Committee should be appointed; and Dr. Buel made a motion that it should be nominated by the meeting and then balloted for. The meeting was reminded, however, that this motion was out of order so long as the one which granted power to the Chair to appoint the Committee remained in force; that a motion to reconsider had prevailed, but that until it was rescinded, the original resolution was in full force.

On motion by Dr. MANLEY the original resolution, that the Committee should be appointed by the Chair, was rescinded. Dr. BUEL's resolution was now in order, but at the request of several gentlemen, he consented to withdraw it.

On motion, it was then resolved that the gentlemen who had been nominated by the Chair should, together with Drs. STEVENS, MOTT and ISAAC WOOD, constitute the committee.

Dr. STEVENS moved that this Committee be instructed to report to this meeting, at this place, on the first Wednesday in January next.

On motion, it was resolved that when this meeting adjourn, that it adjourn to meet at the same place, on the first Wednesday in January next, at 1 o'clock, P. M., and that due notice of the same be given.

The meeting then adjourned.

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DR. BATCHELDER'S ARTICLE.—It is with much satisfaction that we present our readers with the article from Dr. Batchelder. We would call the particular attention of the younger portion of the profession to a careful perusal of it, presenting, as it does, in a condensed form, a clear and distinct view of the surgical anatomy of this region (the angle of the jaw), a thorough knowledge of which is of such essential value to the practical surgeon.

—

MARSHALL HALL AND DR DOWLER.—We have received a communication from the able author of the "reflex doctrine," complaining of the language employed by our correspondent, Dr. Dowler, in the May number of our Journal, and especially of the imputation of "Materialism," imputed to him by Dr. D. This charge is denounced as "cowardice and calumny, refuted by anticipation, by § 9, &c., &c., &c., of my (his) work on the Diseases and Derangements of the Nervous System." "The rest," Dr. Hall, remarks, "is as little founded in truth, moral or scientific. Many have been the attacks on the poor reflex doctrine, but none to compare with this last, and not one with *one* fact, or sound argument against it, Dr. Dowler's inclusive. Many and great are the efforts being now made here to sustain the *Status* of our profession. I am sorry that you should have sanctioned by your name, in any way, what must certainly be considered as an attempt in the contrary direction." We are happy to find, however, that Dr. Hall does us the justice to think that we "did not mean any offence to him," in admitting Dr. D.'s communication.

It is due Dr. H. to remark that we agree with him in the opinion that the language of Dr. Dowler was unnecessarily severe, and we regret very much, that the objectionable passages were not modified or omitted before the article was published. This Journal was, however, established for the fullest and freest discussion of all matters pertaining to medicine, with the express understanding, that all authors who might feel themselves aggrieved, should have an opportunity of reply through its pages. The Editor has never assumed the responsibility of a single line, which has appeared in the Journal, with the exception of what has proceeded from his own pen, nor is he willing to do so for the future. The profession here want an *independent* Journal, open to all, biased by none, and such we claim ours to be. With respect to the distinguished author of the "reflex doctrine," it is no more than justice for us to say, that if there is a single man in the profession for whom we entertain a profound veneration or respect, *he* is that individual. His discoveries in connection with the functions of the nervous system, and his beautiful illustrations of his doctrines, both physiological and pathological, are of the very highest order of merit, and such as no man could have accomplished, unless endowed with extraordinary genius and penetration. But while we do homage to the splendid achievements of Dr. Hall, we may be allowed to express the opinion, that he is unnecessarily and morbidly sensitive to the attacks of criticism.

With regard to the *status* of the profession, both at home and abroad, we profess to be as zealous in its defence, and as earnest in our efforts to sustain it, as Dr. Hall himself.

While we are ready to admit that the labors of Dr. Hall have done much to enhance the dignity and importance of medical science, and even to elevate the *status* of the profession, we are disposed to deny that the admission of a criticism on his theories into our Journal, necessarily proves that *we* have taken a retrograde step, and are aiming to degrade the science, or depress the *status* aforesaid. Neither of these has anything to fear from free and open discussion. In conclusion, we return Dr. Hall our sincerest thanks for the expression of his favorable regards towards the Journal, and his willingness to promote the good objects for which it was established.

Dr. Ashbel Smith.—This distinguished diplomatist and physician has been compelled by ill health to resign his commission in the Texan division of the invading army of Mexico, and has recently visited this city. From him we learn that the sickness among our troops on the Rio Grande has been very extensive and fatal, not less than 1500 men having fallen victims within the last six months. The health of Dr. S. has been considerably benefited by his visit to the north, and with proper care, we have no doubt, will soon be perfectly restored. Our Journal will hereafter be the medium of communicating some of the important results of his observations to the profession, especially in relation to the treatment of Southern fevers.

NOTICE.

An adjourned meeting of the Regular Practitioners of Medicine of this city will be held at the Lyceum of Natural History, No. 561 Broadway, on Wednesday the 6th of January, 1847, at 1 o'clock, to receive the report of the Committee appointed to prepare a Constitution and By-Laws for an " Academy of Medicine and Surgery."

F. CAMPBELL STEWART, M.D., *Secretary.*

New York, Dec. 30, 1846.

2.

Foreign Medical Intelligence.

ANATOMY AND PHYSIOLOGY.

The Anatomy of the Excito-Motor System. By Marshall Hall.—The history of the protracted disputes on this topic would be full of instruction, but it is not my present intention to write it. My object is, to lay before the readers of the Lancet, in a few words (I am always afraid of occupying their time and my own needlessly), *the* argument, or rather, *the* plain and simple proof, of the distinct anatomy of the excito-motor system.

Does any one doubt the distinct anatomy of the system of cerebral nerves—of the nerves of sensation and volition?

The *very same* proof which exists of this part of the nervous system, exists in regard to the excito-motor system. It exists in the pneumogastric nerve, or, as it may be better designated, the pneumogastric system of nerves.

If the pneumogastric be sentient at all, it is the least sentient of all incident nerves. What is it then? It is excito-motor! It is, emphatically, the internal, excito-motor nerve!

Why go to complex structures, when a simple one exists? Why go to the lower order of animals when the mammalia, and even the human being, afford us the proof we require?

The superior and the inferior laryngeals are the associated excitor and motor nerves of the larynx.

The bronchials are associated excitor and motor nerves of the bronchia.

The pharyngeals and œsophageals are associated excitor and motor nerves of the pharynx, of the œsophagus, and of the cardia.

Lastly, and most strikingly, the pulmonic part of the pneumogastric nerve is, as the associate of the diaphragmatic and intercostals, the internal excitor of respiration.

There is, in short, as I have said, the *same* proof of the distinctness of the excito-motor system of nerves, as of the sentient and voluntary, and it is both idle and ridiculous to dispute the fact any longer, or to appeal to other parts of the nervous system than the grand pneumogastric, or to other tribes of animals than the mammalia, for proofs not needed. As confirmations of a truth already established, these researches are, of course, interesting enough. I am myself preparing a paper on the pneumogastric system of animals of limited and of diffused respiration—in the mammalia; and in birds and insects. In birds, the spinal nerves are, doubtless, in their distribution to the diffused breathing cells, analogous to the pulmonic branches of the pneumogastric. In insects, *each segment* with its spiracles (analogues of the larynx, trachea, and bronchia), is endowed with a nervous system entirely analogous to the laryngeals, and to the pulmoniac branches of the pneumogastric, and the diaphragmatic, or intercostals! Then we have to inquire into the nature and office of the lateral nerve in fishes. As in birds, the respiratory nerves are, probably, equally used for flight and for respiration; so in fishes, the lateral nerve is, probably, for swimming and for respiration.

But to return to my topic. The proof of the distinct anatomy of the excito-motor system is afforded by the pneumogastric—the internal, purely, or almost purely, excito-motor nerve.

If, however, we would examine other and more complicated tissues, the proof lies, not, I fear, in the dissection and tracing of fibres, but in physiological experiment; the cerebral system is, so tested, *in*-excitor throughout—in its centre, in the nerves of special sense; the excito-motor system is, in its centre, and in its incident and reflex relations, what its designation implies.

It is pitiable that there should any longer be any dispute on the subject, or that detraction should still attempt to wrest the credit of adducing *the* proof, in any degree, from myself, or from physiology.

Amongst other attempts of this kind, one has been to propose a change in the designation which I had given to the nerves of the reflex arc—and a most unfortunate change, too. The terms incident and reflex *imply* some very definite association, or LAW-*relation*, between the two—a real phenomenon of the most remarkable kind. But the terms *afferent* and *efferent* are, in this respect, utterly insignificant; whilst the meaning which these words do convey, of something borne to and from, is probably altogether erroneous.

The ray of light, which is now incident and immediately afterwards reflected, is the *same* ray, modified, directed, and returned by the reflector, whether it consist in locomotive particles, or in vibration. The same idea is attempted to be conveyed by the terms incident and reflex nerve. There is, in these nerves, and in their connection through the spinal marrow, some extraordinary recondite connection, so that, for example, the excitation of the superior laryngeal sends forth some mysterious messenger to the medulla oblongata, whilst this returns it in the just channel, the inferior laryngeal, so as to effect the closure of the larynx; whilst the excitation of the pulmonic branches of the pneumogastric excites, through the diaphragmatic and intercostal nerves, the contraction of the muscles of inspiration, precisely, definitely, and no other.

The ordinary reflexion of a ray of light, or the polarisation of a ray of light, is not more definite.

The effect produced is obviously *designed*, not by the animal—for its brain may be removed without interfering with this process—but by an omniprovident Creator. This obvious design has misled many to think that there are feeling and volition in the spinal marrow.

The terms incident and reflex are therefore full of meaning; whilst the terms afferent and efferent either convey no meaning at all, or an erroneous one. In this suggestion, the LAW *of association* of the effects of excitement, its incident course, its modification and direction by the spinal marrow, its reflex course and destination, were unperceived.

How much, then, is conveyed or implied in that one word, *reflex*,—incidence, reflexion, appropriate combination, and destination! And how devoid of all meaning are the words afferent, and efferent, not very modestly attempted to be substituted for it!

I beg my reader to study and compare the physiological movements in the acts of inspiration, with their pathological forms in asphyxia: the first are reflex, normal, and beautifully appropriate; the second are, in respect, abnormal and deranged.

My opponents are much disposed to speak of the class of reflex actions, in general terms, as known to Redi, Whytt, &c. This is another ill-chosen but deceptive phrase. The reflex *actions*, as I have *always* said, were spoken of by many previous physiologists; but the phrase I have adopted from the very beginning,—for the very title of my first paper,—was reflex *function;* and this expression, with its fulness of meaning, as applied to all the acts of ingestion and egestion in the animal economy, had been used, could have been used by no one; for as the idea of an incident excitor nerve, with its physiological relations, did not exist in anatomy, so the idea of a reflex function, with its anatomical relations, did not exist in physiology.—*Lancet.*

Absence of Corpus Callosum.—M. Paget has communicated to the Med. Chir. Society, the details of a case in which the middle portion of the fornix and the whole of the septum lucidum were absent, and in which, in place of the corpus callosum, there was only a thin fasciculated layer of white nervous matter, ¼ inch in length, but of which the fibres extended into all those parts of the brain into which those parts of the healthy corpus callosum can be traced. Behind the imperfect corpus callosum, the optic thalami, the middle commissure (which was very large), the posterior commissure, and the pineal gland lay exposed after removal of the velum. The lateral parts of the fornix and the rest of the brain were quite healthy. The patient was a servant girl who died of pericarditis. She had displayed during life nothing very remarkable in her mental condition beyond a peculiar want of forethought and power of judging of the probable event of things. Her memory was good, and she possessed as much ordinary knowledge as is commonly acquired by persons in her rank of life. She was of good moral character, trustworthy, and fully competent to all the duties of her station, although somewhat heedless; her temper was good and disposition cheerful. From these facts M. Paget is inclined to regard the functions of the corpus callosum as connected with the highest operations of the mind, especially as in the few cases in which it has been found deficient, or altogether absent, the mind has possessed a moderate average power and capacity for knowledge, and all the lower functions of the nervous system have been perfectly discharged.—*Ranking's Abstract.*

SURGERY.

On the use of Caustic for the bite of Rabid Dogs.—"The best caustic, I apprehend, for you to use on these occasions is the caustic potash; and for this reason: that it dissolves the parts with which it comes in contact and that afterwards the dissolved caustic penetrates still further beyond, the part to which it has been actually applied. If the tooth penetrate to the cellular membrane, by the time that you are consulted some of the saliva may have reached the cells beyond, and if you apply the nitrate of silver, or the nitric acid, these will coagulate the fluids and harden the solids, while the caustic potash becoming diffused will follow the course of the saliva. A convenient way of applying the caustic on these and some other occasions is this: melt it in a silver or platina spoon, and, when melted, dip into it the blunt end of a probe. It will come out with a varnish of the caustic upon it; dip it in again until the button of caustic has attained a sufficient size. By means of a probe thus armed you may carry the caustic even into a very narrow wound, so that you are sure it will penetrate wherever the dog's tooth has penetrated; after which, from the particular nature of the caustic (as I have just explained) you may be certain that it will penetrate still further, and as far as the poison can have reached."—*B. Brodie.*

The application of caustic to tumors on the scalp must be made with great caution, as appears from the following case:—

"A surgeon applied the caustic potash to the scalp, with the view to make an issue in a man's head, who was laboring under a head-ache and nothing else. When the slough had separated a piece of the occiput was exposed, as large as half-a-crown or larger. The patient was soon seized with a sort of strange symptoms, and died. It was found that the dura mater had become detached from the inside of the bone, just opposite the part where the pericranium had been destroyed on the outside; and it was clear that the sloughing of the dura mater was the cause of the man's death."

When the caustics are used, it is prudent to have some counter-agent at hand to stop their action on the sound parts around. "Acids may be neutralized by alkalies; caustic potash may be neutralized by vinegar, or by a solution of the diacetate of lead. If you are afraid of the nitrate of silver burning the neighboring parts, its action may be neutralized by common olive oil. A solution of bicarbonate of potash will decompose chloride of zinc, and so of other caustics."—*Med. Chir. Rev. July*, 1846.

Treatment of Sprains.—The means which Dr. Poullain and the above authorities recommend in lieu of leeching and cataplasms is the *immediate and continued application of cold* by immersing the part in water. The cure is not only prompt but complete, inasmuch as there is no remaining *engorgement* to lay the foundation of future mischief, and the patient is enabled to employ the joint as actively as heretofore. This would be a great point gained, even if the time consumed in the treatment were as great in the one plan as the other, which it is not. Many cases of its success are related in the paper, and although, of course, in the great majority of instances, the ancle is the joint affected, sprains of other joints may be treated in just the same manner, except that in those, such as the knee, in which immersion may be difficult, the application of wet compresses or irrigation may be substituted. The treatment, indeed, is not novel, for it was recommended by Boyer, and more recently by M. Begin.

"Of 90 patients whom I have treated by the aid of cold and resolvents, 23 were cured in 6 days, 10 in 8 days, 22 in 11 days, 28 in from 11 to 15 days, 4 in from 20 to 25 days, and three at the end of a month. None of these persons have continued lame. Seven felt the effects of their accident for several months, without, however, being prevented attending to their duties, and becoming quite cured. * * * * * If this mode of treatment has incurred blame at the hands of some surgeons, it is because it has not been sufficiently, promptly and freely employed, and it is therefore necessary to lay down some rules upon this point.

"The immersion should be resorted to as soon after the accident as possible. Recourse may be had to it also three, four, five, six, or even 12 hours after, but then its sedative effect is less prompt and the cure more tedious. The foot should remain at least *two hours* in the bath, and oftentimes much longer. It may sometimes be left in for entire days; and as a general rule the part should not be removed until it becomes completely cooled, the water being renewed as often as it becomes warm. This prolongation is easily obtained, for, after the first hour or so (during which the pain is sometimes almost insupportable) the immersion becomes bearable, and the patient is himself very desirous for its continuance. Iced water does not possess any superior efficacy to that of a temperature of 37° or 39°, provided this be equally maintained. As soon as the limb is removed from the bath it must be surrounded by a roller previously moistened with Goulard water or camphorated spirits, some of which must afterwards be applied to it from time to time. So effectually are congestion and swelling in this way diminished, that the bandage usually becomes loose within the 24 hours. It must be re-applied until all swelling and pain have disappeared, which is generally the case in from three to six days. The patient may now be allowed to walk, continuing however the use of a bandage for ten or twelve days.

"If 14, or even six or twelve, hours after the application of the wet bandage, pain still continues, or throbbing is felt by the patient, it must be taken off, and the limb again immersed in the water for a longer period than at first, even for a whole day if requisite. This second immersion is sometimes unsuccessful, but fortunately it is very rarely required, as the first almost always suffices.

"If the sprain is several days old, the limb swollen and painful, while nothing has been done for it, a free local bleeding is a necessary preliminary, after which the bandage and cold lotions, or perhaps immersion itself, should at once be resorted to. These means are, however, now of far less service than when employed soon after the occurrence of the accident."

When the sprain has been badly treated the joint may become the seat of a chronic enlargement, which is dissipated with difficulty, and only after the persevering use of compression. MM. Begin and Velpeau, indeed, employ this in the earliest stage of sprain as a powerful means of preventing inflammatory swelling. Dr. Poullain employs to this end a starched many-tailed bandage. Whatever means are used, the case is tedious and may also require the aid of stimulating liniments, or, if very obstinate, of the douche as employed at the mineral springs, and even this does not always dissipate the enlargement.—*Rev. of Poullain, in the Brit & F. Rev., July*, 1846.

Treatment of Sloughing Ulcers.—"In a great majority of cases, the sloughing process had advanced far before the patients were received; in some, as formerly stated, bones were denuded, and tendons and ligaments destroyed. But in very few, even where the destruction was greatest, was treatment by incision omitted; and in those only where, from fever or flux, there was great constitutional debility. The amount of incision was regulated by the extent of disease in the tissues under and around the ulcer. In some instances, where it did not descend below the integuments, the ulcerative process being phagedenic rather than gangrenous, and the destruction neither very rapid, nor reaching under tissues, it was sufficient to relieve the more superficial vessels, and to substitute scarification for what is understood by incision. More frequently, however, it was necessary to use the knife freely, passing it through the skin, and into the underlying cellular structure. Whatever the proper depth might be, the scalpel was carried quickly from beyond the limit of surrounding disease to the ulcer, often through it. The distance between the incisions varied, but was generally less than a quarter of an inch; their direction was most frequently parallel in the line of the. limb, occasionally radiated from a circle, clear of the affected integuments, to the ulcerated centre, according to the position of parts, and degree of vascular action. In many cases, it was necessary to repeat the practice; in some, frequently.

"The effects of this mode of treatment were generally prompt and most satisfactory. The relief to pain and irritation was often immediate; and, although the remedy was a painful one, patients sought rather than shunned its repetition, upon the recurrence of bad symptoms; so unequivocal was the benefit derived from it.

"Instead of sanious fœtid discharges from the ulcer—its ashy, livid, or black surface, and abrupt margin—there was secretion of pus, separation of sloughing matter, and a crop of florid healthy granulations; the surrounding parts, which had been tumid, darkly inflamed, or œdematous, or having both conditions combined, became flaccid and shrunken, assuming the pale complexion of health. In no instance did the sloughing action extend to the incised surfaces, which either healed speedily by adhesion, or more slowly, but not less surely, by granulation."—*J. Wilson.—Med. Notes on China.*

Treatment of Fracture.—Sir B. Brodie gives no sanction to the operation of cutting down on the broken ends of the bones, and sawing off a portion of each of them, for the purpose of procuring union, and supposes that no modern surgeon, having a moderate share of prudence, would undertake it. In reference to the introduction of the seton in these cases, he remarks, that the result of the practice in this country appears to be, that sometimes it is successful in the upper extremities, but that where it has been performed on the lower extremities, as far as he knows, it has only succeeded in a single instance. The operation is uncertain and the result tedious. Sir B. Brodie speaks favorably of the treatment by pressure proposed by Mr. Amesbury, and states that it succeeded perfectly in three cases which were attended with him. This success, in one of these at least, was not so complete as is represented, since it appears that there was so much yielding motion between the upper and lower portions of the fractured femur, "that it was plain that the union could be merely ligamentous." In this mode of treatment the pressure must be considerable, so as to cause some inconvenience to the patient, both from pain and from swelling of the limb below. But the inconvenience is only temporary.

"The principle of Mr. Amesbury's practice is simply that of keeping the ends of the bones in perfect repose, and at the same time applying pressure, particularly on the broken surfaces, so as to keep them in the closest possible contact with each other. Of course no general rule can be laid down as to the mode of attaining this object. In a case of transverse fracture, one kind of apparatus must be employed, in one of oblique fracture another, and in one of comminuted fracture a third. The apparatus will also differ accordingly as it is a fracture of the arm, the forearm, the leg, or the thigh. In a case of oblique fracture a very simple apparatus will do all that is required. Secure the limb by fastening it to a single rather broad wooden splint. Apply a pad of thick leather on each side of the fracture, and then a tourniquet, by which the two opposite surfaces of bone may be kept firmly squeezed against each other. By means of the tourniquet the pressure may be easily regulated, and increased or diminished as the patient can bear it. The best kind of tourniquet is not the common one, known under the name of Petit's, but one which occupies a smaller space, invented by the late Mr. Savigny, and sold by Philip and Whicker in St. James's street.

"I do not say, however, that this method always succeeds. I had tried it in the case of the little boy whose case I have already mentioned (on whose leg I afterwards used the seton), and without advantage. There was another patient in this hospital on whom it was tried for a considerable time under Mr. Amesbury's observation, and no union was effected; and it appears that Mr. Amesbury met with some cases in his own private practice, in which he has adopted it, and no doubt done ample justice to it, but in which it has failed. Still it has proved a very successful method on the whole, and certainly very much more successful than any other."—*Sir B. Brodie.*

INVERTED DISPLACEMENT OF THE BLADDER.—Mr. Crosse, in the *Trans. of the Prov. Med. and Surg. Asso., for* 1846, gives the history of a case of rare occurrence, which is important, as exhibiting the value of a careful examination and consequent just diagnosis, and the dreadful risk attending a mistake in this particular. We extract the more material points of the narrative:

"In the year 1829, a highly respected colleague of mine, since deceased, received under his care a healthy-looking female child, aged between two and three years, on account of a tumor, about the size and shape of a walnut, projecting visibly at the external *labia pudendi.* It was of a florid red color, and somewhat granulated upon its surface, so as to resemble a large strawberry; and the surgeon entertained a notion that it was a vascular tumor, which might be removed by a ligature, on which account he requested me to inspect it.

"After a slight examination, I expressed my doubts as to its being a vascular tumor, and dissuaded him from a hasty application of a ligature. I could not, however, immediately explain its nature, having no conception how such a tumor could be formed by the displacement of the parts only, without any superadded morbid growth. Towards the posterior part of the tumor, and on its sacral aspect, there was an aperture, which was conjectured to be the entrance into the displaced urethra. A very small female catheter easily entered this aperture, and passed a channel a little to the left side of the median line: urine distilled in drops through the catheter, but there was not a gush, although the instrument had entered so far that we concluded it must have reached the cavity of the bladder. Besides what thus oozed through the catheter, slightly tinged with blood, there was an oozing of urine from another source, which was not explained until a second and more strict examination, instituted a few days afterwards, on my casually coming to the patient's bedside, just as the surgeon was prepared to apply a ligature round the neck of the tumor.

"I now found, concealed in a fold of the tumor, and near to the posterior junction of the labia, two orifices not far asunder, from which the urine oozed, and which were evidently the vesical termination of the ureters. On pressing the tumor firmly, as if to reduce it like a hernia, I found it yield and pass gradually behind the symphysis pubis, and within the labia; and under a continuation of the taxis it all retired, leaving the external parts in their proper shape and position A passage remained, through which the tumor on retiring had taken its course, which was actually the dilated urethra, into which I *could* and *did* introduce my little finger, until it fairly entered the cavity of the replaced bladder; for it now became clearly demonstrated that the vascular red tumor, externally presenting itself as first described, was the urinary bladder in its entire thickness, including its mucous, muscular, and peritoneal coats, prolapsed through the dilated urethra, and at the same time inverted or turned inside out. The proper lining membrane of the bladder became, in the progress of this displacement, the external covering of the tumor. As fast as the urine was secreted by the kidneys, it oozed from the terminating orifices of the ureters, which were concealed within a fold of the exposed surface of the tumor, and approximated to each other. The neck, or deepest and narrowest part of the tumor, just concealed within the labia, was covered by the inverted line of the urethra, the inversion being complete.

"In this instance, had a ligature been efficiently applied to the neck of the tumor, as was contemplated, the bladder would have been removed, including all its coverings, the ureters cut through just above their terminating orifices, and the peritoneal cavity largely opened, with a necessarily fatal result!

"As the friends of the child could not be applied to, the history was imperfect. It was stated that the tumor had existed for a considerable time, and been always attended by stillicidium urinæ; also that it had been once replaced, but descended again, shortly before it came under my observation. During the short period that the child remained under my notice, after the replacement of the bladder, there was no relapse; and and since this account has been sent to press, I have been fortunate enough to ascertain, and to be enabled to add, that the patient is still living, after an interval of sixteen years, and is a healthy young woman, save only the affliction of the incontinence of urine, with which she has been constantly troubled, but without any relapse of the vesical displacement."—*Brit. & For. Med. Rev., Oct.*, 1846.

MEDICAL PATHOLOGY AND PRACTICAL MEDICINE.

Clinical Lectures on Diarrhœa of Infants.—By Professor Trousseau.—*Treatment.* When bilious diarrhœa is the consequence of mere nervous excitement—when it is caused by fear or anger, as tears by grief, or salivation by appetite—opium gives relief in a very short time. In these cases, which you will find to be characterized by the absence of any sort of suffering during the first twenty-four or thirty-six hours, the disease will speedily yield to the influence of hypnotic medicines. Half a drop of Sydenham's laudanum is a sufficient dose for a child under six months; others, it is true, will bear two or three drops, but that dose is too powerful a narcotic for the many. The laudanum should be dissolved in an ounce mixture, whereof the infant shall take a tea-spoonful every three or four hours; but when the disorder has lasted beyond the specified time, opium ceases to possess its salutary effect, because the mere presence of the increased secretions on the mucous surface has sufficed to bring on an irritation which did not exist at first. Then we must have recourse to neutral salts.

In mucous diarrhœa we have generally derived benefit from three sources: saline purgatives, calomel, and rhubarb. The dose of calomel we recommended is one-fifth of a grain daily, mixed with half a drachm of sugar. This should be continued two or three days at furthest. As to rhubarb, it is the "syrup" we use, the so-called "sirop de chicorée"—a good preparation in everything but its absurd name, which insinuates the idea of the efficacy of the endive, which is, on the contrary, perfectly inert. Great attention should be paid to the child's diet; his food, less abundant than usual, should be chosen with great care. Milk is the most proper food for young children; fecula and broth also may be given after the expiration of the first year, and the drink should be in small quantity. In the choice of food the physician must also allow himself to be guided, in a great measure, by the idiosyncrasy of the child, and the mother's remarks on the peculiarities of his appetite.—*London Med. Times.*

Use of Castor Oil in Mucous Membrane cases. By Dr. THOMSON, Burton-on-Trent. [Dr. Thomson believes there are but few cases of diarrhœa occurring in infants under a year old but what may be cured by castor oil, even when ulceration has taken place: as shown by a predominance of blood in the evacuations—tenesmus, abdomen tumid and painful, mouth dry and aphthous, &c., &c. He gives the castor oil with yolk of egg, and according to circumstances does or does not add a gentle opiate. He recommends, however, as accessory, the warm bath, liniments to the abdomen, and occasionally a mild mercurial dose. He observes]—

No mercurial so quickly changes the character of the evacuation as the emulsion, which only requires to be steadily persevered in. The following is the form in which I generally prescribe it for infants:—For an infant of from two to four months old: ℞ Ol. ricini ʒ i—ʒ iss, Vitelli ovi semis., Aq. menth. fœniculi, aa, ℥i. Ft. emuls. Sumat. coch. parv. bis die. To the above, from two to six drops of laudanum may be added, or not; but, of course, this, as well as the size and frequency of the dose, must vary with the case. The mixture is generally taken readily, and even liked. The same preparation is equally useful in that form of intestinal affection which is met with in children of from one to nine years of age, but presenting slightly varied symptoms, such as the tendency of the evacuations to become watery, brown, black, and very offensive; the picking of the lips, nose, &c. In a case of this nature which lately came under my care, the patient, a boy aged three years, lay almost insensible and somnolent. The evacuations, resembling black dirty water, and very offensive, were passed eight or ten times in the twelve hours. Other symptoms of subacute inflammation of the mucous membrane were also present. After the first dose of simple emulsion, there was no motion for thirty-six hours, all the other symptoms becoming ameliorated. The medicinal action of oil is certainly much modified by its union with the yolk of egg, for the same dose which would act well as an aperient alone, when thus combined will scarcely act at all.—*Monthly Journal of Medical Science.*

MIDWIFERY AND DISEASES OF FEMALES.

Uterine Polypi and Ulceration.—Dr. Montgomery has published in the August No. of the Dublin Quarterly Journal of Medical Science, a very valuable paper on *Uterine Polypi and Ulceration, with cases.* Dr. M. deduces the following conclusions, as the results of his extensive observation on this class of diseases.

1. That small uterine polypi, or polypoid excrescences, are of frequent occurrence.

2. That they are often not discoverable by touch alone, and so escape notice.

3. That they may even elude detection with the speculum, especially if the instrument used is not capable of separating the lips of the os uteri.

4. That they are a common cause of ulceration and menorrhagia, one or both; the cure of which requires, as a preliminary step, the removal of the polypus.

5. That while, on the one hand, a small polypus may escape detection, there is, on the other hand, a peculiar condition of the anterior lip of the os uteri liable to be mistaken for a polypus, and requiring a long time for its removal.

6. That very small polypus of the os uteri, when occurring in women of advanced age, especially if they are of the vesicular kind, are often the precursors of a malignant form of uterine disease.

7. That polypus being very frequently accompanied by ulceration of the os and cervix uteri, and its concomitant pain and structural alteration, the symptoms are occasionally mistaken for those of cancer; which error is most likely to be committed if an examination should happen to be made just when a polypus of rather large size is passing through, but still engaged in, and distending the os uteri.

8. That in cases of larger sized polypi, ligature is the means most generally eligible, as being safer than excision, though not so expeditious; its application having, in general, the immediate effects of restraining the morbid discharges, and alleviating other symptoms, and ultimately curing the disease.*

9. That polypi and polypoid excrescences of small size are best removed by *torsion;* or in some instances, their destruction may be conveniently effected by *caustic.*

10. That with large polypi, torsion is unsafe, and should not be attempted.

11. *That even with a polypus of small bulk, and slender pedicle, excision is not free from the risk of troublesome hemorrhage,* while with those of larger size, there is great reason to apprehend such an occurrence taking place to a very dangerous degree, even though the precaution may have been taken of firmly constricting the pedicle with a ligature previous to its division.

12. That in ordinary cases of benign polypus, when no other disease exists in the uterus, the removal of the tumor by ligature, or other suitable means, is, in the vast majority of cases, completely successful, even under circumstances apparently quite hopeless.

13. That in malignant growths, such as cauliflower excrescence, removal by ligature will sometimes effect a complete cure, and that where the success is not so decided, much good may be done by the operation.

14. That the situation from which a polypus springs makes a considerable difference in the symptoms which it produces; a polypus of the lip of the os uteri giving rise to lower symptoms and much less discharge, than one of very inferior size growing from any part within the os uteri.

15. That a polypus of only moderate size, growing from the lip of the os uteri, is not likely to interfere injuriously with gestation or delivery, and its removal may be effected by, and as consequence of, the pressure which it sustains during the expulsion of the child.

16. That if a polypus, already detached, be too large to pass readily out of the vagina, it ought not to be allowed to remain there; but should be removed with the least possible delay, as its putrefaction may be attended with very unpleasant consequences.

17. That a fibrous tumor, originally formed in the substance of the uterus, may thence descend, pass through the os uteri, and form an ordinary pediculated polypus in the vagina.

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* We are informed that the operation of excising a uterine polypus was recently performed in this city, with a fatal result, owing to excessive hemorrhage.—*Ed. N. Y. Journal.*

18. That in the unimpregnated state of the uterus, this change will be effected gradually, and in general very slowly; but that should pregnancy occur, the descent and expulsion of the tumor may take place quickly under the expulsive action of labor.

19. That a polypus, even of large size, may thus make its appearance for the first time, immediately after delivery, no suspicions having been previously entertained of its existence.

20. That the cure of long-standing polypus, with large discharges, is liable to be followed by a condition of the system requiring precautious against determinations to the head.—*Dublin Quar. Jour., Aug.*

Supposed Influence of Quinine in producing Abortion. By M. Rodrigues.—M. R. has published his observations on this subject, in reply to a statement which appeared in the *Annales de Thérapeutique.* He has treated fifteen cases of intermittent fever in pregnant women with sulphate of quinine, and all of them were cured without any bad result. He lately treated a pregnant woman for rheumatism with quinine in large doses; her disease disappeared, and no abortion took place. He appeals also to the extensive experience of Professor Delmas, who says that he has invariably treated pregnant females laboring under marsh fever just in the same way as he treated other patients laboring under the same disease, and never saw abortion occur in any of them. M. Mojon has been able, by means of this remedy, to arrest abortion in persons not laboring under fever. M. R. believes that it is the disease for which quinine is given, and not the drug itself, that causes abortion, and that miscarriage is much more likely to result from permitting intermittent fever to run its course unrestrained than from treating it with sulphate of quinine.—*Month. Jour. Med. Sci., from Journal de Méd. et de Chir.*

Passive Congestion of the Uterus—By James Milnan Coley, M. D.,—When a state of anæmia occurs during pregnancy, the veins and lymphatics of the uterus are liable after abortion or labors to remain in a state of atony, which renders them in some instances incapable of recovering their original diameter, unless sufficient rest is allowed in the horizontal position. Hence, those puerperal women who are compelled or induced to resume the upright position prematurely, while laboring under this state of cachexy, are apt to experience severe and lasting misery from pain in the back, and a sensation resembling that produced by prolapsus uteri, whenever they attempt to walk or remain long in the erect posture. On examination, we discover a soft, doughy, indolent, compressible tumor, occupying some part of the uterus towards its cervix. Pressure with the finger leaves an impression resembling that from œdema in the extremities, and little or no uneasiness is perceptible by the patient from the pressure. The shape of the tumor is oval, its long axis corresponding with that of the uterus, and its size varies. It may be distinguished from carcinoma by the absence of pain, tenderness, and induration, and by the healthy condition of the cervix and os uteri; and from the fibrous tumor of the uterus, by its characteristic softness. On examining the morbid part with the speculum, it appears injected with venous blood, which appearance I believe proceeds from the retardation to the return of the blood in the venous capillaries, and the consequent distension of the mucous membrane. Unless removed by proper remedies the disease may continue many years.

Treatment.—As long as the process of sanguification is interrupted, and the elements of the blood disturbed, the vessels circulating that fluid will be found to partake of the general enervation: the contractile power of the vessels, as well as other vital functions, being found defective. Hence, a constitutional remedy will be necessary, as well as the collateral assistance to be derived from a favorable position of the body; for it must be observed that the preternatural distension of the veins and absorbents, and the consequent infiltration of serum into the cellular membrane, are the result of a passive congestion, having but little disposition to terminate in inflammation. The essential treatment, therefore, consists in the exhibition of iodide of iron, which operates by removing the deficiency of fibrine and hæmatosine in the blood, and promoting the absorption of the lymph effused into the cellular membrane, the natural consequence of venous and lymphatic obstruction. Some practitioners recommend uninterrupted decumbiture, with or without scarification of the cervix uteri. I have seen the horizontal position continually employed during many months, without observing any improvement in the tumor; and I believe it will be found that no patient in a state of anæmia can bear such constant confinement without increasing the constitutional disorder. Having never found it necessary, in the treatment of this disease, to have recourse to scarifications, I cannot speak of their effect, although it appears to me they may be calculated to afford temporary relief, should the disease be found to extend to the cervix uteri.—*Lon. Med. Gaz., Sept.* 18*th.*

On the Natural Period of Gestation.—Dr. Leray of Nantes, has drawn the following conclusions respecting the natural period of gestation, in a Memoir lately presented by him to the Provincial Medical Society in France :—

1. The natural term of gestation, as well as of premature delivery, has a direct relation to the menstrual periods.

2. The return of these periods, throughout pregnancy, bears a direct relation to the day of the month corresponding to that at which the menses last appeared, whatever number of days there may be in the month.

3. The time at which delivery takes place in the majority of females, whether at the full period or prematurely, corresponds to the day of the month at which the menses ceased, or it occurs within the week following.

4. Nevertheless the parturient pains may in some rare cases commence in a normal way, at the end of the first two weeks of the tenth month.

5. Every delivery which takes place before the period referred to, may be regarded as premature.

6. Every delivery which takes place after one week from this period, may be considered as protracted.

7. The premature are in far smaller proportion than the protracted cases, and rarely precede the specified term more than five days.

8. The protracted cases, however, cannot be comprised within any specified limits.

9. In most instances the causes of premature or protracted deliveries may be assigned.—*Lon. Med. Gaz.*

MATERIA MEDICA AND PHARMACY.

"*Arseniate of Quina.*—This salt, first prepared by M. Bourières, has latterly been much used in France in the treatment of obstinate intermittents, and, it is stated, with much success; the chief obstacle to its more general employment being, according to Dr. Bondin, its extreme bitterness. It is readily prepared as follows: Dissolve half an ounce of sulphate of quina in boiling water, and precipitate with ammonia; wash and dry the precipitate, and dissolve it with the aid of heat in three ounces of distilled water, containing two scruples of arsenious acid in solution; as the solution cools, crystals of arseniate of quina are deposited, which are to be dissolved in distilled water and recrystallized. It is a light, white salt, crystallized in brilliant satiny needles. It is soluble in water, but more so in boiling than in cold water; it is also soluble in weak alcohol, but is insoluble in absolute alcohol or in ether. The dose of it is from one to two grains in divided doses in the course of twenty-four hours. It is usually given in solution in distilled water, to which a little simple syrup may be added."—*Phil. Med. Exam.* Oct., 1846.

Camphor.—An adulteration of this substance with muriate of ammonia has been lately detected in Brussels, and is said not to be uncommon in France; we are not aware that the fraud has been practised in British commerce as yet. It may be readily detected by the action of quicklime, which would liberate the ammonia; or by treating a suspected specimen with water, which would dissolve out the muriate of ammonia.

At a late meeting of the *Societé Medico-pratique* at Paris, many of the members cited facts tending to prove that camphor is a medicine the abuse of which is extremely dangerous. M. Homolle related a case of phthisis in which he prescribed more than twenty grains of camphor, in divided doses in the twenty-four hours; the effect of which was, that the patient was attacked with frightful dyspnœa, continued nausea, and violent palpitation of the heart, all of which symptoms were with much difficulty subdued. Dr. Gaide mentioned the case of a man who was in the habit of taking camphor in very large doses, as a consequence of which he became affected with aggravated diphtheritis. M. Moreau stated, that he had seen a lady attacked with acute meningitis, which only yielded to the most active treatment, from having taken large doses of camphor to cure an obstinate neuralgic affection. Dr. Labarraque said, that a butcher, for whom he had prescribed six grains of camphor, was attacked with violent vomiting which nearly proved fatal.—*Ibid.*

Castor Oil.—The mildness and certainty of operation of this cathartic give it peculiar advantages in the treatment of many diseases; very often, however, its tendency to produce vomiting prevents it from being employed. To remedy this inconvenience, M. Parola proposes the substitution of an extract, an ethereal, and an alcoholic tincture of castor-oil seeds, for the oil itself. The result of his experiments on himself and on numerous sick and convalescent individuals, is as follows:—1st. That the ethereal and alcoholic tinctures have a purgative action four times as strong as the oil obtained by expression, and that they are not so apt to produce vomiting, nor so irritant as the ordinary oil. 2d. That these new preparations remain unalterable for a long period without reference to climate or season. 3d. That the ethereo-alcoholic extract possesses a purgative action comparatively weaker than the marc or pulp from which it is extracted, proving that the seeds contain a principle which is insoluble in alcohol or ether. 4th. The advantage of the new preparations, so far as relates to their not causing vomiting, is easily explained by the smallness of the dose in which they are administered.

M. Righini has directed much consideration to the devising of a formula for prescribing castor-oil, and the following form, in which the purgative properties are not in the least diminished, he states to be free from the usual inconveniences of a dose of this medicine:—Take of finely-powdered gum-arabic, ʒii.; pure water, ℥iii.; make a mucilage with a small quantity of water, and then add of castor-oil ℥i.; mix carefully, and afterwards pour in, while agitating the mixture, the rest of the water; finally add with constant agitation, the filtered juice of one orange, and one ounce of simple syrup."—*Ibid.*

The Valerianate of Zinc appears to be a most valuable addition to the materia medica, combining the properties of an antispasmodic and a tonic, and, consequently, being peculiarly adapted for the treatment of neuralgic affections. Devay, who has employed it very extensively, states, that he has found it most useful in the treatment of facial neuralgia and of vertigo. After a fair trial of the remedy in many cases, we can confirm his observations, as also the fact noticed by him, that this new chemical combination proves much more beneficial than the oil of valerian and oxide of zinc prescribed together. The high price of the salt unfortunately prevents clinical observations from being made in charitable institutions as to its effects. Valerianate of zinc is very readily decomposed, most acids setting free the valerianic acid, and combining with oxide of zinc. It also undergoes partial decomposition if exposed to the air, or even if kept in badly-stoppered bottles, when it emits a strong valerian odor—the perfect salt having but a very feeble odor, being not completely soluble in water. The best characteristics of its purity are, its being in brilliant, pearly, tabular crystals of a snowy whiteness; its neutrality to litmus paper; its complete solubility in water, and its possessing but a very feeble odor of valerian. The dose of it is from three-fourths of a grain to one grain two or three times a day; it may be prescribed in the form of pill made with a little mucilage, or conserve of red roses; or in solution in orange-flowers. The compounder must bear in mind that the crystals of valerianate of zinc do not dissolve readily in cold water, floating on the surface in consequence of their lightness; they should, therefore, be first incorporated with a few drops of water in a mortar.—*Ibid.*

TOXICOLOGY.

Arsenical distinguished from Antimonial Deposits in the Use of Marsh's Apparatus.—Various plans have been proposed to enable the experimentalist to distinguish easily arsenic from antimony, when a metal is deposited by the combustion of hydrogen in Marsh's apparatus. M. Cottereau has lately suggested a new method, which consists in exposing the deposit, obtained on a porcelain capsule, to the vapor of phosphorus. Some pieces of phosphorus are placed on a flat porcelain tile, and the capsule with the deposit is then inverted over them, and allowed to remain exposed to the phosphorus vapor at the ordinary temperature. The arsenical deposit disappears under these circumstances in the course of a few hours, while the antimonial stain remains as long as a fortnight before it disappears, and then it is sometimes only partially removed. On exposing the capsule to a slow current of sulphuretted hydrogen gas, the deposit soon reappears of a bright-yellow color if arsenical, and of an orange-red color if antimonial.—*Lon. Med. Gaz.*

Blood an antidote to Arsenic.—" M. Apoiger has inferred from certain experiments that there is a strong affinity between arsenious acid and blood; and that these bodies chemically unite even in the cavity of the living stomach.

" A dog was kept for sixteen hours without food. At noon he was made to swallow 15 centigrammes (=2.3 grains) of arsenic, and in a quarter of an hour afterwards 560 grammes (17 oz.) of fresh calf's blood. The animal experienced tremors, thirst, nausea, and depression; but there was neither vomiting nor purging, nor was any urine passed.

" In three days the same dog was dosed with 30 centigrammes (=4.6 grains) of arsenic; and in about twelve minutes, he was made to swallow 375 grammeS (11½ oz.) of blood—with a like favorable result. In the evening, the dog was free from any abnormal symptoms. On the fifth day, 45 centigrammes (= about 7 grains) of arsenic were given to the animal immediately, and afterwards 275 grammes of blood (8½ oz.) The results were equally satisfactory, and in 24 hours a *pterygium* of the right eye, from which the dog had previously suffered, entirely disappeared! On the seventh day, the unfortunate dog being again selected, M. Apoiger administered 60 centigrammes (= 9¼ grains) of arsenic, and 250 grammes of blood (about 8 oz.) The dog perspired (?) to such a degree that it appeared as if it had been taken out of water. The other symptoms from which it suffered, were purging, urination, and hoarseness! On the ninth day, 90 centigrammes (= nearly 14 grains) of arsenic were given, and 180 grammes of blood (about 5½ oz.) In addition to the above symptoms, the dog suffered from convulsions and partial paralysis of the legs. Towards the close of the day, however, they all disappeared. No other experiments were performed, and the animal perfectly recovered. M. Apoiger subsequently killed it for the benefit of science; and found the stomach and intestines *inflamed*, and the blood in a gelatinous state. On a chemical analysis, 125 milligrammes (= nearly 2 grains) of arsenic were obtained from the blood, but only 87 milligrammes (= 1.3 grains) from the brain."

*** Such are the results of these ingenious experiments as they are reported in the *Gazette des Hôpitaux.* Admitting that this dog did not possess a *Mithridatic* constitution, there is something remarkable in its having resisted five successive attempts to poison it at very short intervals. The account of the post-mortem appearances renders it somewhat doubtful whether the dog had actually recovered, as M. Apoiger alleged: and it is a new fact (?) in toxicology, that so large a quantity of arsenic may be extracted in ponderable quantities from the blood and brains of animals which have *recovered* from the effects of this poison! Admitting that there was no fallacy in the experiments, we think M. Apoiger would have some difficulty in persuading patients to swallow large quantities of fresh blood as a problematical antidote in poisoning by arsenic; and he certainly has not done himself justice in his mode of stating the results of his discovery; for his experiments show as conclusively that a mixture of arsenic and blood will cure a *pterygium* without endangering life, as that large quantities of fresh blood will combine with and neutralize the poisonous effects of small doses of arsenic!

Poisoning by Prussic Acid.—Dr. Fleming of Glasgow gives the following results of the chemical test in a case of poisoning by Prussic Acid :—

"Some hours after the inspection, four ounces of a thick pulpy fluid, which had a distinct odor of hydrocyanic acid, were taken from the cardiac extremity of the stomach, and in the clear fluid obtained from this by filtration, the test by the protosulphate of iron failed in producing the distinctive blue color.

"Ninety hours after death the remaining contents of the stomach, amounting to about fourteen fluid ounces, and consisting of half-digested animal food, bread, and apparently malt liquor, having a faint odor of prussic acid, were put into a retort, with the addition of some sulphuric acid. The retort was placed on a sand bath, and distilled with a gentle heat for three hours, when two ounces of a clear fluid had collected in the receiver, having a distinct odor of prussic acid, masked, however, by the peculiar sour smell of half-digested food.

"1. On rendering a portion of the distilled liquid alkaline by potash, the addition of a solution of the protosulphate of iron produced a dirty green precipitate, which by a few drops of hydrochloric acid was changed to a deep Prussian blue color.

"2. To the fluid rendered alkaline by potash, the addition of a solution of the sulphate of copper produced a greenish precipitate, which became white on adding a few drops of hydrochloric acid.

"3. On a solution of the nitrate of silver being added to the distilled liquid, a copious white precipitate took place. When this was dried and heated in a very narrow reduction tube, it emitted a gas which, when ignited at the end of the tube, burned with a rose-colored flame.

"The complete success of these experiments thoroughly established the presence of prussic acid in the stomach."—*Monthly Jour. of Med. Sci.*"

MISCELLANEA.

Gun Cotton.—The great topic of the day,—the theme of discussion everywhere, in Europe and America,—is the discovery of a process by which cotton is rendered as explosive as gunpowder. Various samples of cotton thus prepared, which we have seen, ignited even with more rapidity than the best gunpowder, and left no trace behind when exploded on a piece of perfectly white paper. Speculation is of course rife as to the value of this new discovery—as to the safety of the article, its durability and economy, compared with gunpowder.

From all we can learn, we incline to doubt whether the discovery will prove of any great practical utility. It is alleged by a writer in one of the monthly journals, "that it is constantly (though gradually) undergoing decomposition, and thereby deteriorating in quality," and it has been found to explode in the process of drying from spontaneous combustion. Cotton, it is known, is eminently hygrometric, and, in a moist atmosphere, from the absorption of water, it would be likely either to undergo decomposition, or lose its capability of ready ignition, and in either way be unfit for use. It is also alleged by those who have given attention to the subject, that the cost of the manufacture of the article, notwithstanding the facility of the process, will render it more expensive than gunpowder.

A late number of the London Medical Gazette contains the fullest account of its discovery, process of manufacture, etc., that we have anywhere seen, and we have accordingly transferred it to our *Record.* Experiments made in this city, have shown that the addition of a moderate quantity of sulphuric acid to the nitric, in the process of Dr. Otto, described in the extract, produces a more perfect article, but that spontaneous combustion is more apt to occur in drying.—*Medical Examiner.*

Scotch Medical Colleges.—The University of St. Andrew's is the only one of these colleges which grants degrees to candidates who do not reside in the town in which they are situated for at least one session, and take out certificates from their professors. Fellows, licentiates, and members of the colleges of surgeons, are admitted to examination on production of their diplomas: and all other candidates are required to produce the usual certificates obtained during four complete winter sessions. The periods of graduation are the first Tuesday in May and the first Tuesday in August. As many surgeons throughout England and Ireland are desirous of obtaining the title of Doctor of Medicine without absenting themselves from home for any length of time, and many students are anxious to secure the same qualification without being obliged to pay for additional certificates, it is desirable that these regulations should be generally known.

The only two institutions which grant degrees without residence, or payment of extra fees to particular professors, are the Universities of London and St. Andrew's. They both, however, require as protracted and perfect a course of study, and submit the candidate to as severe examinations, as any of the other colleges. Formerly the University of St. Andrew's granted its diploma to medical practitioners without examination, by which that qualification was brought into discredit; but for some years it has been even more strict than many other establishments for medical education. In our Student's Number of last year, we printed the regulations of St. Andrew's University in full, with a detailed account of the examination, which may be obtained at the office of this journal.

The Universities of Edinburgh and Glasgow require four years' study and a year's residence, with the usual certificates. That of Glasgow receives certificates from all the schools; but that of Edinburgh has, lately, preferred those obtained at medical colleges. In this respect, it appears, it has at length given way, having seen the necessity of keeping pace with the progress of events, and submitting to the test of competition.

The degrees granted by the Scotch colleges cost about £25.—*Med. Exam., from the Dublin Med. Press.*

Regulations for Medical Graduation in the University of Dublin.—The times of graduation are Shrove Tuesday and the first Tuesday in July. The medical examinations terminate the Tuesday of the preceding week. Candidates must previously have completed their medical education, and produced a chart testifying to the details of the same, and subscribed by the registrar to the professors in the School of Physic, as well as by the persons signing the certificate.

1st. Candidates *who have graduated in arts* may obtain the degree of

Bachelor of Medicine at any of the ensuing half-yearly periods of graduation, provided the requisite medical education and examinations shall have been accomplished. The payment at entrance is £15. The fees for studying in arts, during four years, are £7 10s. each half year; and the fees for graduation in arts £8 17s. 6d.

The graduation fees for the degree of Bachelor of Medicine are £11 15s. The testimonium of the B.M. degree will contain the following certificate: "Testamur sedulam operam medicine navassæ et examinationes coram professoribus feliciter sustinuisse."

The medical education of a Bachelor of Medicine comprises attendance on the following courses of lectures (of which three, at the discretion of the candidate, may be attended at the University of Edinburgh), in the School of Physic established by act of Parliament, provided that one and not more than three of the courses which begin in November be attended during each of four sessions. The courses are—on anatomy and surgery, chemistry, botany, materia medica and pharmacy, institutes of medicine, practice of medicine, midwifery (by the professor to the College of Physicians), clinical lectures at Sir Patrick Dun's Hospital during at least one session of six months, as delivered by the professors in the School of Physic.

The fees for attendance on the clinical lectures are regulated by act of parliament—they amount to £3 3s. to the professors for each three months' attendance, and (provided the student be of two years' standing in the university) £3 3s. to the treasurer of the hospital for the first year, with a proportionate sum for any longer period. The fees for each of the other courses are £4 4s.

The examinations for the degree of Bachelor of Medicine are conducted by the Regius Professor of the University, the six professors of the School of Physic, and the Professor of Midwifery to the College of Physicians.

No further examination is requisite for the degree of Doctor of Medicine, it may be taken at the expiration of three years from taking the degree of M.B. The fees for the degree of Doctor of Medicine, which entitles the possessor to the same elective privileges as the degree of Master of Arts, are £22.—*Ibid.*

OBITUARY.

Death of Dr. Bostock.—This distinguished physician died in London, in August last, at the age of seventy-three. His disease is reported to have been *Cholera*—of course of the Sporadic variety.—*New York Annalist.*

Dr. John Thompson, late Professor of General Pathology in the University of Edinburgh, on the 11th of October last, in the 82d year of his age. He was eminent both as a teacher and practitioner, and is well known as an author of various works on medical science, of which his lectures on Inflammation, his edition of Fourcroy, his account of the Varioloid, and his life of Cullen are the most celebrated. His life was a busy and useful one. Clinical lecturing owes to him its existence in Edinburgh. He gave there, the first separate course of Lectures on Surgery. He was one of the celebrated eight who commenced the *Edinburgh Review.* It was he who succeeded in inducing the College of Surgeons, in Edinburgh, to found a professorship of Surgery, and he delivered the course for sixteen years. He was also the founder of its Museum. He established a Dispensary, from which the poor were visited at their own houses. He was a warm champion of the Non-Mercurial Treatment of Syphilis. He was President of the College of Physicians. He delivered the first lectures in Edinburgh on Pathological Anatomy, in preference to a symptomatology, and collected the finest collection of colored pathological drawings, with the histories of the diseases attached, now in existence, and worth $10,000. Of such a man we may safely say, that he has raised a monument more durable than brass. He was sceptical as to the power of medicines, and too honest to conceal his want of faith, which somewhat diminished his success as a practitioner. His two sons are Professors.—*Ibid.*

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An Introductory Address delivered before the Medical Class of the University of Pennsylvania. By SAMUEL JACKSON, M.D. Nov. 3d, 1846. 8vo. pp. 15.

Introductory Lecture read at the Commencement of the Course on the Institutes and Practice of Medicine. By S. HENRY DICKSON, M.D., Prof. Nov. 9, 1846. Charleston, 8vo. pp. 35. - - - - - - - - - 217

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TO READERS AND CORRESPONDENTS.

Several articles intended for the present number, have been necessarily deferred until our next.

Communications have been received from Professors **Stevens**, **Beck**, Drs. **Dewees** and **Hall**, of this city, and Drs. N. S. **Davis**, **North**, **Payne**, **Turner**, **Hay**, and several others, all of which shall find a place in our next.

We have received since the publication of our last the following works :—

Hand-Book of Human Anatomy, General, Special and Typographical. Translated from the original German of Alfred Von Behr, and adapted to the use of the English student. By **John Birkett**, Fellow of the Royal College of Surgeons, England, etc. etc. Philadelphia: Lindsay & Blakiston. 1847. Small 8vo., pp. 487.

Materiæ Medica and Therapeutics, including the Preparations of the Pharmacopeias of London, Edinburgh, Dublin, and of the United States, with many new Medicines. By J. **Forbes Royle**, M. D., F. R. S., Prof. of Mat. Med. & Therapeutics, King's College, London. Edited by **Joseph Carson**, M. D., Prof. of Mat. Medica, in the Philadelphia College of Pharmacy, etc., etc. With 98 Illustrations. Philadelphia, Lea & Blanchard, 8vo., pp. 689.

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A Practical Treatise on Inflammation, Ulceration, and Induration of the Neck of the Uterus, with remarks on the Value of Leucorrhœa and Prolapsus Uteri, as Symptoms of Uterine Disease. By **James Henry Bennet**, M. D., etc. Philadelphia, Lea & Blanchard, 1847. 12mo., pp. 146.

Encyclopædia Americana, Supplementary Volume; a Popular Dictionary of Arts, Sciences, Literature, History, Politics, and Biography. Vol. XIV. Edited by **Henry Vethake**, L.L.D., etc. Philadelphia, Lea & Blanchard, 1847. Large 8vo., pp. 663.

Reports from the Pennsylvania, New York State, and the Bloomingdale Asylums for the Insane, for 1847.

The following Journals have been received in Exchange :—

The London Medical Gazette.
The British and Foreign Medical Review.
The Provincial Medical and Surgical Journal.
The Dublin Medical Press.
The Dublin Quarterly Journal of Medical Science.
The London and Edinburgh Monthly Journal of Medical Science.
The Illinois Medical and Surgical Journal.
The New Orleans Medical Journal.
The Boston Medical and Surgical Journal.
The Western Journal of Medicine and Surgery.
The St. Louis Medical and Surgical Journal.
The Philadelphia Medical Examiner.
The Southern Journal of Medical Science.
The British American Journal of Medical and Physical Science.
The Southern Journal of Medicine and Pharmacy.
The American Journal of Pharmacy.
The American Journal and Library of Dental Science.
The Buffalo Medical and Surgical Journal.
The New York Annalist.
Western Lancet.
Missouri Medical and Surgical Journal.
Stocton's Dental Intelligencer.
La Lancette Canadienne, Journal Medico-Chirurgical.
New York Medical & Surgical Reporter.

THE NEW YORK
JOURNAL OF MEDICINE.

FOR MARCH, 1847.

PART FIRST.

Original Communications.

ART. I.—*Abstract of a Letter from* Dr. N. S. JARVIS, Surgeon U. S. Army, dated Monterey, Mexico, Oct., 1846, embracing several Surgical Cases, which fell under his Treatment and Observation.

AFTER stating matters of a private nature, Dr. Jarvis continues: "On the 19th of September we encamped within four miles of Monterey, in a grove of Peccan trees, called "Walnut Grove," where we were abundantly supplied with clear and cold water, from a stream of considerable size and rapidity, formed by the junction of numerous springs, which took their rise in the surrounding lime-stone rocks. The combination of wood and shade rendered this spot admirably fitted for an encampment. On the following day parties were employed in reconnoitring the enemy, and in observation of the fortified position of the town. Towards evening my Regiment, 3d Infantry, with another, were advanced a mile towards the town, to cover a party of engineers, engaged in the erection of a Mortar Battery, but returned to camp about 9, P.M., having been relieved by another regiment.

On the morning of the 21st the whole division was thrown forward towards the city, with a view, as we supposed at the time, of making a diversion in favor of the 2d Division, under Gen. Worth, which was moving on the western side of the city by the Saltillo road. Few of us supposed, as we silently marched along, occasionally passing through cornfields and by the side of hedges, or whatever could conceal our movements from the enemy in their batteries, that we should so shortly be engaged in a fierce and deadly strife. As soon as, or in fact before, we emerged from under cover, the batteries from either end of the city opened their fire upon us, completely sweeping the plain in every direction, and enfilading the advancing columns of our troops, now rapidly marching towards the suburbs. The engineer officer having reported the practibility of attacking with success the rear of some of their forts, the 1st, 3d, and 4th Infantry were ordered to advance rapidly by separate roads, and now it was my professional labors commenced; the nearest and only shelter that presented itself to me for the wounded, falling every moment under a most destructive fire, was a quarry pit, four or five feet in depth, and the same in breadth. Several of these were contiguous, and to them I directed the wounded to be carried. By stooping we were protected from the shots, which, however, became every moment thicker, owing to the fact, that our troops had by this time advanced within range of the enemy's fire, and the moment they perceived a party of men bringing the wounded to us, they directed all their guns upon it. I had already performed one amputation, and was preparing for a second, when two or three fugitives rushed into the pit, falling over the wounded that lay there crowded together, saying that a large body of lancers were approaching. So little credit did I attach to their report, which I ascribed rather to their fears than the actual presence of this dreaded description of troops, that I never raised my eyes to observe them ; which circumstance doubtless saved us all. Had I been discovered, all would have been massacred, as in their headlong fury, they would neither have delayed to ascertain our character or profession, nor have paid much respect to our patients. Several soldiers who had sought an adjoining pit with an officer were slain. They were soon after repulsed by a regiment of Ohio and Mississippi Volunteers, marching to reinforce those already in the town, and their retreat was farther quickened by a shower of grape opened upon them by our artillery.

I commenced with a determination of giving you a surgical history of the actions of the 21st, 22d, and 23d September, but have unintentionally thus far given a military narrative. This, however, will show, in the incidents above narrated, that the military surgeon is at times somewhat unpleasantly situated, when in the discharge of his professional duties, deprived as he is of the security, and many of the appliances enjoyed by his fellow practitioner in civil life.

The first wounds were received in crossing the plain, and were inflicted by grape and cannon-shot. This was of course before we had approached within reach of their musketry. These wounds were all low : generally at, or just above the ankle, according to distance and direction. Of the first three men brought to me, two had received wounds from twelve pound shots just above the ankle, which had nearly severed the limbs, which were hanging only by a portion of integuments. The other had his heel torn off by a six pound shot. Shortly after, our troops having advanced within reach, and under the fire of the Mexican Infantry, numerous cases of wounds by musket and escopette* balls were brought to me ; these latter are one-third larger than our musket-balls, and consequently inflict a more severe and formidable wound. So numerous at this time became the wounded in our pit, and so constant and heavy the fire, directed towards the parties approaching with the wounded, as to compel us to remove our hospital several hundred yards farther in the rear. We had not long been in our new position, when some covered wagons bringing the wounded attracted the attention of the enemy, who immediately re-opened their fire, compelling us a second time to remove beyond the range of their shot.

Among the numerous projectiles, occasioning severe and fatal wounds, were grape, canister, fragments of iron and copper shells, and stones knocked by the balls from the buildings and walls. Their shells were thrown with great accuracy, frequently in the midst of a body of troops, but fortunately killing and wounding but few.

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* An escopette is a short carbine, similar to a blunderbuss, and carries a ball one-third larger than our musket. M.

Before speaking of any particular wounds, I will here take occasion to make some remarks respecting the character they assumed, and the peculiar causes acting to prevent a favorable result, so far as regarded the healing of all, even the most slight. The first annoyance we experienced, and which no doubt exerted an injurious effect, was one little anticipated at the time. The moment a limb was amputated numerous flies would alight on the stump, and must have deposited their eggs, for when it became necessary to dress the stump, myriads of maggots were found buried in it, which could be expelled with great difficulty; rendering it necessary in some instances to re-open the flap, for their complete extermination. A much more formidable enemy made its appearance in an erysipelatous inflammation of the integuments, covering the stump, which generally set in two or three days after the operation; and notwithstanding all the means made use of to arrest it, most commonly ended in sloughing, and either proved fatal or rendered a second amputation necessary. That some influence existed previously, either external or internal, from causes connected with the state of the atmosphere, or habits of the men, arising from diet or water, was manifest. The slightest wound or scratch became in every case a tedious ulcer, in some instances proving a cause for serious alarm. Apparently the most trifling wounds required an unusual time for healing, and even those that had previously healed would break out again, and present greater difficulty in their cure than in the first instance.

At this period no atmospheric causes apparently existed to produce this unfavorable aspect of things. Nothing could exceed the loveliness of the weather, if I may so express myself, and if the middle of the day were warm, the morning and evening refreshed us by a most delightful temperature and cloudless sky. No rain had fallen, with the exception of one or two showers, for nearly a month, and consequently little moisture existed to produce its well-known morbific influence. Immediately after the capitulation of the city, on the 25th of September, all the wounded of the different divisions entered the town, and suitable buildings were provided for their accommodation. Upwards of two hundred officers and men from the 1st and 3d Divisions, who had been most severely wounded, were conveyed thither on the same day in litters and wagons. The wounded of the Second Division already occupied the city.

Our camp afforded no comfort nor shelter for them beyond a few small tents and a solitary blanket laid on the ground: and many were destitute of even this apology for a bed, having lost them on our march. Many had no other clothing than that in wear, which was not only torn and soiled in climbing over the hedges, walls, &c., during the battle, but was stiff and saturated with blood from their wounds. A few days after their reception into the hospitals, tertian intermittent fever made its appearance, attacking many of the wounded, and in the majority, retarding or completely arresting convalescence. On many of those severely wounded it exerted a decidedly pernicious influence, and no doubt contributed, in some cases, to a fatal termination. It not only attacked the wounded in the hospitals, but prevailed extensively in camp and among the population of the town and neighboring country. I cannot say to what extent, this may be attributed to the putrid exhalations arising from the numerous bodies of men and horses slain in the different combats, and which had been slightly covered with earth, and emitted a most sickening and offensive effluvia. This, doubtless, contributed largely towards infecting or destroying the purity of the air, and establishing a poisonous miasm.

With these preliminary remarks, I will now give you an outline of a few of the more interesting cases resulting from gun-shot wounds, received during the three days' attack on Monterey, and which came under my observation at the time. With a view to some order and classification, I will describe first those of the head and face.

Case 1.—Corporal Sherridan, 1st Infantry, was struck by a musket-ball on the anterior and central portion of the os frontis, destroying it for a distance of two inches. Considerable portions of the brain issued from the wound, and notwithstanding the severity of the case, the patient appeared to suffer little or none until the third or fourth day, when, coma supervening, followed by delirium, he died.

Numerous wounds of the scalp, accompanied in three cases by destruction of the periosteum and outer table of the skull, came under my observation, but presented nothing new or different in their character and progress from ordinary cases.

Case 2.—Private Redville, of the 3d Infantry, in passing a stone wall, received a wound in the right eye, as he supposed, from a fragment of stone broken from the wall by a cannon-ball, and which struck him with force sufficient to knock him down. I saw him two or three hours after the injury was received, and found his eyelids so much swollen, as to render it very difficult to ascertain the condition of the eye itself. In placing my finger over the inner canthus, I felt a sharp point, apparently of some hard substance. This I immediately extracted with a pair of common forceps, and found it to be a fragment of grape, three-quarters of an inch in length, and one half an inch in width at the centre, of an oblong or elliptical shape. It was of copper, or an alloy of that metal, and had evidently been broken off by striking the wall. On examining the eyeball I found it uninjured, the fragment having passed between it and the inner canthus, and penetrated to the posterior wall of the orbit, destroying the lacrymal sac, the os unguis, and wing of the sphenoid bone. Considerable inflammation and suppuration followed, and although at the present time the wound has entirely healed, the pupil remains permanently dilated, and vision destroyed. This seems to indicate an injury of the optic nerve, which the missile from its length must have reached and destroyed.

Case 3.—Private Jones, of the same regiment, was wounded about the same time by a musket-ball striking him near the angle of the inferior maxilla, on the right side, fracturing the bone, passing directly through the tongue and the corresponding portion of the bone on the opposite side. The tongue was completely severed at its base, hanging only by a few muscular fibres. The patient was almost moribund when brought in, and died shortly from excessive hæmorrhage.

Case 4.—Major L., commanding the 3d Infantry, received a wound from an escopette-ball directly in the centre of the upper lip.

The ball passed obliquely backwards and to the left, tearing away the bony palate, and completely destroying the upper maxilla and malar bone of that side, and fracturing the condyle of the inferior maxilla, passed out behind the ear near the mastoid process. The velum pendulum palati was completely separated from its superior connections and rested on the tongue. The whole of the alveolar process, together with the teeth on the left side, was carried away. To enable him to articulate, as well as swallow, I contrived to fasten up the pendulous palate by a stitch, and afterwards by a ligature placed around the remaining incisor tooth, with a view of afterwards endeavouring to effect a union with the parts from which it was torn. I subsequently secured it more completely by a strong ligature passed through it in two places, the ends being brought together, and by means of a probe carried up through the nostril and fastened with adhesive plaster to the forehead. Intense inflammation followed, involving the whole side of the head, and during several days pieces of bone were being constantly separated and discharged. The previous ill health of this officer rendered his case the more unpromising. He had suffered for two or three years from severe and repeated attacks of Asthma, which had so enfeebled his general health that the least exposure or fatigue was attended by intense suffering and danger of death. Up to the present time nature has made but little recuperative effort, in consequence perhaps of an attack of intermittent fever, which, in many cases, thus acts in retarding the healing process.*

Case 5.—A private of Col. Hays' mounted Texan Rangers was wounded on the 21st in an attack made on the eastern side of the city. A copper grape-shot striking him at the same point as in the preceding case, passed obliquely backwards and downwards, wounding the tongue and fracturing the lower jaw on the left side near its angle; then coursing along the neck, beneath the integuments and muscles, lodged near the insertion of the left sterno-cleido mastoid muscle into the clavicle, where it was cut out. Fragments of bone came away, and considerable inflammation, with difficulty of swallowing, followed, but the wound progressed favourably, and notwithstanding the size of the shot and destruction of parts, is at the present time nearly healed. His head is considerably drawn down, and a rigidity of the jaw, with inability to speak, remain.

Case 6.—The sergeant-major of the 5th infantry was wounded on the 22d, the ball entering near the same point as in the two former cases, but passing obliquely backwards and upwards *above* the roof of the mouth, and lodging near the articulation of the jaw on the right side, between the coronoid process and masseter muscle. It was subsequently extracted, and the wound at the present moment has entirely closed, leaving, however, as in the former case, more or less immobility of the jaw.

Case 7.—Private Lewis, of the 1st Mississippi Regiment, was wounded on the 22d September. The ball struck him at the lower point of the lobe of the ear, and posterior edge of the ramus of the inferior maxillary bone on the left side. After fracturing this bone midway between its angle and articulation, the ball passed transversely inwards, tearing away the back part of the palate, and came out through the right malar bone. This case progressed favourably, and the wound at the present time is nearly healed. Some deformity, arising from ossific matter thrown out in the union of the jaw, and a certain degree of immobility remain. The close vicinity of the carotid artery to the point of entrance of the ball, and its entire escape from injury, renders this case doubly interesting.

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* **This officer died a few days afterwards.—M.**

The next order of wounds are those of the neck, thorax and abdomen, many of which, of an interesting character, presented themselves during the engagements, but the limits of my letter warn me I must reserve them for a future occasion. I will, however, describe a few cases of wounds of the pelvis and bladder, presenting some singularity in the direction and force of the balls, and interesting in the nature and result of the injuries they inflicted.

Case 8.—Lieut. G———, 4th Infantry, was wounded in three places about the same time, on the morning of the 21st September. The most severe wound, however, was one, in which the ball, striking the upper and anterior portion of the thigh, entered the pelvis, wounded the fundus of the bladder, and passed out at the sacro-ischiatic notch. The femoral vessels, in the course of the ball, escaped being wounded in a most remarkable manner. The urine passing freely through the wound necessarily produced considerable infiltration and inflammation of the cellular tissue of the thigh. By changing his position so as to lie on the left side, and introducing a catheter, which was constantly maintained in the bladder, no more urine escaped through the wound, and the inflammation rapidly subsided. No unfavorable symptoms followed. The usual separation of the parts destroyed in the course of the ball took place, succeeded by a healthy suppuration, at the usual period of gun-shot wounds, and a hope was entertained by his friends of his speedy recovery. This hope was still more strengthened when, on the tenth day after the wound was received, the catheter, by some accident, became obstructed, and remained so some time before it was discovered, and on its withdrawal and re-insertion, upwards of *twelve ounces* of urine were drawn off, showing conclusively that the wound in the bladder must have entirely closed, to enable it thus to retain so large a quantity of fluid. The expression of his countenance, and cheerfulness of manner, would hardly have indicated any great pain or suffering. It was only on the twentieth day that any alarm was excited in the minds of his friends, by his suddenly being attacked by rigors, followed by fever and profuse night-sweats, which, notwithstanding all the means made use of, rapidly reduced his strength, and he expired on the night of the 13th October, and on the *twenty-second* day after being wounded. A post-mortem examination of this case would have proved highly interesting, showing how far wounds of this description, affecting internal hollow organs, may heal, and the manner in which a restoration of the parts destroyed takes place; but the pressure of professional duties at the time has prevented so desirable a finish to the history of the case.

Case 9.—Private Capers, of the Baltimore Battalion, was wounded early on the 21st September. The ball entered directly above the os pubis, and taking a direction downwards and obliquely backwards, wounding in its course the bladder, passed out of the pelvis between the sacrum and tuberosity of the ischium on the left side. It was found lodged between the integuments and glutei muscles, from which point

I extracted it. Urine passed freely at the time, from the wound over the pubis, but ceased shortly after the introduction of the catheter, which was constantly maintained in the bladder, as in the former case. Very little tension or tenderness of the abdomen followed, nor any symptoms of peritoneal inflammation, showing that the ball had entered the bladder without wounding the peritoneum.* Neither were there any signs of extravasation or infiltration of urine, and but little or no febrile action. About the tenth day after its reception the wound over the pubis, which had by this time entirely closed, broke out again, discharging urine, this was shortly afterwards followed by the opening of that in the nates, made for the exit of the ball. Through the latter, both fæces and urine, passed, showing that sloughing had taken place, and a communication formed between the rectum and bladder. The contents of both of these were occasionally discharged from the anterior wound. The patient lingered in this miserable situation until the *sixteenth* day, when he expired, worn out by pain and suffering.

Case 10.—Private Young, of the 1st Tennessee Regiment, was wounded nearly at the same time and place as the above. The ball entered just above the os pubis, and about one inch to the right of the symphysis. It ranged diagonally across the pelvis, inclining downwards, wounding both the bladder and rectum, and passing out through the left sacro-ischiatic foramen, just above the os coccygis; urine and fæces passed out from both orifices of the wound. When brought in, it was supposed, from his general appearance, that he would survive his wound but a very short time. A catheter was introduced immediately, which was retained with considerable difficulty. The wounds were dressed in the usual manner; urine and fæces continued, however, to pass out of the wounds, attended by considerable irritation and febrile action. In this condition he lingered *twenty-three* days, when he expired, worn out, as in the case of Capers, by long-continued suffering.

Having given a brief description, of a few of the gun-shot wounds in the different assaults on Monterey. I will conclude my communication, with a statement of the number and results of the larger amputations, performed on those occasions. The total number in the three divisions of the army was *twenty-eight*, viz.: *ten* in the first division, *four* in the second, and *fourteen* in the third or volunteer division. Twenty were performed on the field, or on the following morning, in the camp; the remaining *eight*, at subsequent periods, varying from five to twenty days. *Twelve* of the number, including *two* in those taken prisoner and operated upon by the Mexican surgeons, proved fatal, and the remaining *sixteen*, have nearly or quite recovered. This average of mortality was not confined to our wounded. I was told by Dr. Hidalgo, surgeon in charge of the Mexican military hospital, that of *thirteen* amputations performed there, *five* had proved unsuccessful, and one case, that had recently been operated upon, appeared to me to be in a critical condition, but whether the patient died or recovered I have not learned.† In addition to unfavorable causes, not enumerated among those I have heretofore noticed, and from which the Mexicans were happily exempt, was the repeated removals to which our wounded were subjected. In carrying them from the field to the camp, a distance of three or four miles, they suffered greatly; and the subsequent removal to town, still farther increased the pain and danger, and in one or two cases, evidently, was productive of a fatal termination.

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* The ball entered the bladder externally to the point were the peritoneum is reflected from the posterior wall of the abdomen upon the fundus of the bladder. M.

† This case subsequently proved fatal.

With a few remarks, on the appearance and condition presented by the two cases of amputations of the thigh, performed by the Mexican surgeons, in their hospital alluded to above, I will close. One of these had been operated upon on the same day with the injury, and the other some four or five days after. Neither stump on examination, after the removal of the dressings, presented any unusual appearance; on the contrary, the flaps had been neatly adjusted and brought together, and kept so by a number of interrupted sutures and adhesive straps, encircling it in every direction, and adhesion had apparently taken place, in one case along the line of divided integuments. No one judging by the external appearance of the wound, if we except a degree of paleness of the integuments of the flap and some fœtor, would have suspected the condition and extent of disease within. On dressing the first case and removing the lint and adhesive straps, which had become somewhat offensive, the edges of the flap receded or partially separated, so as to reveal a large cavity or excavation, the whole surface of which was dark and ill-conditioned, and from the centre projected the end of the bone. There were no signs or appearance of suppuration or granulation having ever taken place in the divided muscles; on the contrary, they appeared absorbed or attenuated by previous discharge, of which none existed at this time. The patient rapidly sunk, and died on the fourth day after his admission into the Division hospital.

Private Alexander, of the Baltimore Battalion, the other case, was brought to our hospital some two days after the one above. His stump presented nearly the same appearance as the first, with no indications whatever of the diseased condition within. Eleven days after his admission, the flap gave way, disclosing the same appearance as in the former case, with most intolerable fœtor. Gangrene rapidly extended, and he died on the *twelth* day after his admission, and the *thirteenth* from the time of the operation.

Among other consequences arising from gun-shot wounds, in my hospital, were two cases of traumatic tetanus, both of which proved fatal. The first case manifested itself seven days after the injury, which was a wound of the knee-joint, with a fracture of the patella by a grape-shot. The man was brought from the camp of the 4th Infantry to the Division hospital, and was attacked a few hours afterwards, by opisthotonos, followed by trismus and severe spasmodic action of all the muscles of the body. He died the same night. The other case originated from a gun-shot wound of the left thigh, in which the ball passed down to the femur, six inches below the trochanters, and taking a direction upwards on the outer side of that bone, denuded it entirely of the periosteum for the distance of three or four inches, and was cut out from beneath the gluteus maximus muscle of the same side. Here the first symptoms manifesting an attack of this dreadful disease was violent spasmodic action of the muscles of the injured limb, which soon extended to those of the whole body, followed by trismus and a certain degree of opisthotonos. He expired on the *fifteenth* day after receiving his wound, and nine days after being received from the

Mexican hospital; having been taken prisoner and carried thither on the 21st September, the day on which he was wounded.

Art. II.—*Annual Report of the Seaman's Retreat, Staten Island, for the Year* 1846.—W. C. Anderson, M. D., Resident Physician.

The "Seaman's Retreat" is a hospital for sick and disabled seamen, established October, 1831; and deriving its support, from a fund created by a tax upon all seamen entering the Port of New-York; and collected according to the provisions of an Act, passed by the Legislature of the State of New-York.

The hospital is situated upon Staten Island, about midway between the Quarantine Ground and the Narrows.

The buildings consist of one large hospital of granite, three stories high, containing two hundred beds; and a brick building in the rear, formerly the principal hospital, but which is now fitted up for the accommodation of lunatics, of whom there are, at present, ten in the Institution. The situation of the "Retreat,'' is one of great salubrity and beauty. Elevated about sixty feet above high-water mark, and distant about 500 feet from the shore; it commands a view of the Bay, and Narrows; the Harbor of New-York, and the Hudson River, as far as the Palisades; while from its upper galleries, the Lower Bay, Coney Island, and the Highlands of Neversink, at Sandy Hook, are seen in the distance. A better situation for a Marine Hospital could not well have been selected, as the view of the numerous shipping, constantly passing and repassing, compensates in some degree for the confinement of sickness, which is ever irksome, but in other situations, would to the restless sailor, be so in an especial degree.

Since the opening of the Institution, there has been a gradual increase in the number of patients, as will be seen by the following table.

Table I.—*Showing the Number of Patients admitted each Month, from the opening of the Institution, October,* 1831, *to December* 31, 1846.

Years.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Annual Total.
1831										73	64	31	168
1832	46	33	52	39	38	57	39	55	50	45	41	52	547
1833	48	37	42	36	49	60	39	75	54	53	63	52	608
1834	60	45	56	85	86	104	92	121	94	78	54	58	933
1835	90	65	38	50	76	86	123	102	127	79	68	58	962
1836	96	77	91	69	71	137	102	121	165	113	75	69	1,186
1837	82	101	114	115	123	162	133	148	113	62	60	69	1,282
1838	75	56	45	61	74	81	108	113	99	114	60	76	962
1839	98	62	50	83	102	110	150	161	178	169	95	80	1,338
1840	83	63	41	77	103	127	161	194	212	124	113	105	1,403
1841	139	82	94	70	133	126	152	178	174	133	56	78	1,415
1842	125	84	96	86	144	187	229	228	202	139	102	90	1,712
1843	118	77	80	84	112	171	175	185	190	146	135	125	1,598
1844	121	128	112	100	121	120	116	116	125	118	81	72	1,330
1845	98	62	75	66	91	99	134	184	183	135	75	118	1,320
1846	114	84	118	99	150	138	118	156	164	187	119	148	1,595
													18,359

TABLE II.—*Showing the Number of Patients admitted and discharged, with*

Diseases.	Remaining Dec. 31st, 1845.	Admitted 1846.	Total.	Discharged Cured.	Relieved.	Request.	Died.	Total Discharged.	Remaining Dec. 31st, 1846.
Abcessus,	3	24	27	23	4			27	
Albugo,	1		1			1		1	
Amaurosis,	5	6	11	3	1	4		8	3
Acne,		2	2	2				2	
Anthrax,		1	1	1				1	
Asthma,		3	3	2	1			3	
Anasarca,		2	2	2				2	
Apoplexia,		2	2				2	2	
Arthritis,	2	3	5	2	1	1		4	1
Aneurismus,		5	5		2	2	1	5	
Asthenia à Febre,		43	43	39	1		1	41	2
Asthenia à Potu,		24	24	24				24	
Asthenia à Fractura,		6	6	4	2			6	
Bronchitis,	5	59	64	59	4			63	1
Carcinoma,		1	1				1	1	
Cephalalgia,		3	3	2				2	1
Cerebritis Chronica,		1	1				1	1	
Colica,		5	5	4	1			5	
Contusio,	2	24	26	24				24	2
Caries,		6	6	5		1		6	
Conjunctivitis,		12	12	5	7			12	
Cystitis,		4	4	2				2	2
Coxalgia,		2	2	2				2	
Delirium Tremens,		16	16	15				15	1
Diarrhœa,	3	34	37	33	2		1	36	1
Dysenteria,	1	22	23	19		1		20	3
Dyspepsia,		1	1	1				1	
Enteritis,		3	3	1			1	2	1
Erysipelas,		7	7	6			1	7	
Exostosis,*	1	1	2		1		1	2	
Epilepsia,		1	1	1				1	
Eczema,		6	6	4	1	1		6	
Febris,		7	7	7				7	
do. Intermittens,	2	78	80	79				79	1
do. Remittens,	2	96	98	87			9	96	2
do. Typhoides,	1	19	20	10			5	15	5
Fistula in Ano,		1	1						1
do. in Perineo,	2	2	4		2			2	2
Fractura Radii,	1		1	1				1	
do. Sterni,		1	1	1				1	
do. Maxillæ,		1	1			1		1	
do. Cruris,		2	2	2				2	
do. Femoris,		1	1	1				1	
do. Metacarpi,		1	1						1
do. Comp.,		2	2	1				1	1
Furunculus,		3	3	3				3	
Gelatus,	9	11	20	18	1			19	1
Gastritis,		11	11	10		1		11	
Hepatitis,	2	9	11	5		3	1	9	2
Hypertrophia Cordis,	1	4	5		2		2	4	1
Hernia,		10	10		10			10	
Hæmoptysis,		2	2	2				2	
Hæmatemesis,		2	2	1			1	2	
Hæmorrhoides,		9	9	9				9	

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* The death under this head was from marasmus ; exostosis being the disease for which he was admitted, the previous year.

their several Diseases, and the Results of Treatment for the Year 1846.

Diseases.	Remaining Dec. 31st, 1845.	Admitted 1846.	Total.	Discharged Cured.	Relieved.	Request.	Died.	Total Discharged.	Remaining Dec. 31st, 1846.
Hæmaturia,		1	1	1				1	
Hydrocele,		1	1		1			1	
Hydrops Articuli,	1		1				1	1	
Herpes,		3	3	3				3	
Hypertrophia Penis,		1	1	1				1	
Icterus,		2	2	2				2	
Iritis,	2	12	14	13	1			14	
Impetigo,		3	3	3				3	
Icthyosis,		1	1		1			1	
Laryngitis,		4	4	3		1		4	
Lepra,		1	1		1			1	
Luxatus Humeri,		1	1	1				1	
Lichen,		1	1	1				1	
Mania,	7	3	10			1		1	9
Meningitis Chronica,		1	1			1		1	
Necrosis,	2	8	10	1	2	3		6	4
Nephritis,		4	4	4				4	
Nebula,		1	1		1			1	
Nyctalopia,		1	1		1			1	
Ophthalmia,		4	4	2	1			3	1
Orchitis,		23	23	20	1			21	2
Otitis,		2	2	2				2	
Paralysis,	6	9	15	3	1	6		10	5
Paronychia,		6	6	5	1			6	
Periostitis,		6	6	5				5	1
Phthisis,	7	71	78		26	9	34	69	9
Pleuritis,		5	5	3		1	1	5	
Pneumonia,		16	16	11			1	12	4
Ptyalismus,		2	2	2				2	
Psora,		2	2	2				2	
Psoriasis,		6	6	4	1	1		6	
Prolapsus Recti,		1	1	1				1	
Rheumatismus,	11	202	213	195	6	2		203	10
Rubeola,		5	5	5				5	
Scrofula,	3	16	19	5	8	4	1	18	1
Scorbutus,	1	10	11	11				11	
Sprain,		8	8	8				8	
Strictura,		7	7	3	3	1		7	
Surditas,	2	4	6	3	2	1		6	
Superannuated,	2	1	3			1		1	2
Syphilis,	38	313	351	284	11	21	1	317	34
Sycosis,		1	1	1				1	
Synovitis,		4	4	1	2			3	1
Spermatorrhœa,		1	1		1			1	
Tonsillitis,		10	10		9			9	1
Tumor,	1	4	5	5				5	
Urethritis,	3	118	121	111	3	4		118	3
Ulcers,	9	65	74	39	20	5		64	10
Ustio,		6	6	6				6	
Urticaria,		1	1	1				1	
Variola,*		7	7			7		7	
Vulnus,		9	9	7	1	1		9	
Total,	138	1595	1733	1309	142	83	67	1601	132

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* The cases of variola reported as discharged by "request," were sent to the Quarantine Hospital.

The average number cured was 81·76 per cent.
do. do. do. relieved, 8·88 do.
do. do. do. by request, 5·18 do.
do. do. do. died, 4·18 do.
The mean duration of treatment was 29 days.
The daily average of patients was 127·73.

Treatment of Primary Syphilis.

From the ample opportunities afforded at this institution to ascertain the best method of practice to be pursued in the treatment of syphilis, I think some important results have been obtained, from which I have been led to adopt a mode of practice not generally known, or at least, as far as I am aware of, not generally resorted to. My attention was first called to this mode by an article in the Medical and Surgical Reporter, for June 27th, 1846, by Dr. A. L. Cox, of this city, which, however, that gentleman does not claim as original, but gives the credit of its first suggestion to Dr. S. A. Cartwright, of Natchez, Miss. It consists in the administration of calomel in large doses, followed by purgatives, and repeated daily. Not given with a view to salivation, although that result did happen in two or three cases out of fifty treated by this method. Previous to adopting the calomel treatment, I was in the habit of giving in specific ulcerations of the genital organs, the perchloride of mercury, in combination with the compound syrup of sarsaparilla; an eighth of a grain of the former to two ounces of the latter, twice a day. Under the use of this, indurations were removed, and sores took on a healthy character in from fourteen to twenty days. Occasionally, the gums became sore, but this result did not take place with anything like the uniformity which it did when the pil. hyd. was used. Local dressings of sol. chlor. calcis with lint was the only application in general resorted to, although it sometimes happened that mercurial washes were found to expedite the cure; and again, in very irritable sores a wash of the solution of opium was frequently required.

The method of giving the calomel was to begin at once with scruple doses, followed in six hours by the compound infusion of senna. This course was repeated every morning until the character of the sore was changed, unless it was found to produce too much cathartic effect, or to affect the gums.

The following cases will illustrate the method of procedure, and its success.

Case 1.—H. C., æt. 20. Admitted September 7th, for pains in his bones of three weeks' duration, and chancre on the prepuce of ten days, being the re-appearance of a sore which had a short time previously been dried up by the application of sulph. cupri, but which left an induration. He had a bubo last winter, when the sore was first contracted. Treat.: cal. ℈j. followed by inf. senn. comp. ℥ ij. 9th, Repeat same. 10th, Repeat same. 11th, Repeat same. Discharged cured Sept. 14th. Duration of treatment, seven days.

Case 2.—J. S. W., æt. 23. Admitted September 7th, with phymosis and chancres on the edge of the prepuce of five days' duration. Slight enlargement of the glands of left groin. Treat.: cal. ℈j. ℞. Inf. sennæ com. 9th, Cal. ℈j. ℞. Inf. senn. comp. 11th, ℞. Cal. ℈j. followed by eccoprotic mixt. 12th. Has had chills, followed by fever, puls. 120, tongue furred. ℞. Inf. sennæ. ℞. Pulv. Doveri, gr. iij., pulv.

ipecac., gr. j. Repeat every three hours. 18th. Had another paroxysm of ague yesterday. ℞. Emetic, followed by quinine. Discharged cured September 23d. The sore had been healed several days. Duration of treatment, sixteen days.

Case 3.—J. W., blk., æt. 24. Admitted Oct. 9th, for chancre on the glans, of one week's duration, and bubo in the right groin. Treat.: cal. ℈j., followed by inf. sennæ comp. The sore readily healed under the use of simple dressings. Discharged cured Oct. 16th. Duration of treatment, seven days.

Case 4.—J. M. B., æt. 27. Admitted Oct. 1st, for ulcer upon the pubis, of forty-two days' existence; overhanging, livid edges and fetid discharge. Treat.: cal. ℈j., followed by inf. sennæ comp. ℥ ij. 3d, Repeat same. 5th, Complains of soreness of gums; the ulcer has put on a healthy character; red granulations are shooting up; for a local wash the sol. chlor. sodæ has been used. Discharged cured October 17th. Duration of treatment, sixteen days.

Case 5.—J. L., æt. 19. Admitted Sept. 10th, having a large syphilitic sore on the lower side of the penis, of three weeks' duration. Treat.: poultice to sore. ℞. Cal. ℈j., followed in six hours by mist. eccoprotic. 13th, Repeat cal. and eccop. 15th, Repeat same. 19th. Repeat cal., with inf. sennæ. 21st, Mouth slightly touched; omit medicine. Apply ung. hyd. rub. to sore. Discharged cured, Oct. 26th. Duration of treatment, 46 days.

This sore was of that species of ulceration, which is generally very obstinate, healing in the centre, and spreading on the edges in the crescentic form, and sometimes requiring months to effect the healing process.

Case 6.—T. E., æt. 36. Admitted Nov. 3d, for ulceration of the extremity of glans penis, of three weeks' duration, with partial paraphymosis; the ulcer about the size of a shilling piece. Treat.: poultice. ℞. Cal. ℈j. 5th, Repeat cal. ℈j., followed in six hours by inf. sennæ comp. 6th, Repeat same. Discharged cured, Nov. 11th. Duration of treatment, 8 days.

Case 7.—A. P., æt. 26. Admitted Nov. 5th, for fistulous bubo, of twenty days' duration, and chancres on corona glandis, which appeared a few days before the former. Treat.: poultice to bubo. Sol. chlorid. calcis to sores. ℞. Cal. ℈j., followed by inf. sennæ comp. 7th, Dilated sinus in groin, and dressed with lint. Repeat cal. ℈j. and inf. sennæ comp. 9th, Repeat same. 11th, Repeat same. 13th, Repeat same. Discharged cured, Nov. 19th. Duration of treatment, 14 days.

Case 8.—B. F., æt. 35. Admitted Nov. 3d, for chancre on corona glandis, of two weeks' duration, and bubo in the right groin, of seven days. Treat.: cal. ℈j. The treatment was pursued after the same manner as the above. The bubo did not suppurate, having been dispersed by the application of Ricord's caustic. Discharged cured, Nov. 26th. The chancre having been well for several days, but he was detained for the purpose of healing up the issue. Duration of treatment, 23 days.

Case 9.—C. W. E., æt. 20. Admitted Nov. 7th, for phymosis and ulceration underneath the prepuce, which is indurated and œdematous, and cannot be retracted sufficiently to view the ulceration. A copious dark brown fetid discharge issues from the orifice. He has also a bubo in the right groin, which has suppurated. The whole of three weeks' duration. Treat.: poultice to bubo and penis. The calomel treatment with purging was continued for six days, when the prepuce could easily be retracted, affording a view of the ulceration underneath, which extended half way around the corona glandis, with elevated edges and brownish discharge. Discharged cured, Nov. 30th. Duration of treatment, 23 days.

Numerous cases of this description could be given, but the above will be sufficient to illustrate the manner in which syphilis, in its primary form, is here treated. Another advantage, which I have not observed under other methods, is that the worst and most forbidding cases of phymosis are reduced without the necessity of an operation, which is sometimes followed by unpleasant consequences, such as the cut surfaces taking on the same character as the original sore; and always more or less œdema and infiltration, which greatly retards the cure.

Compound Fracture of the Leg, forty-one days without aid; Exsection of the Tibia; Cure.

William Phillips, æt. 40. Born in Virginia. Admitted April 3d, with compound comminuted fracture of the left leg, occurring at sea, forty-one days since. Both bones are broken; the upper fragment of the tibia projects through the integuments about three inches, the lower fragment lying upon the inner side and behind, with about an inch of its surface entirely denuded, and having the appearance of dead bone; exuberant granulations shooting up between the fragments; the whole limb from the knee to the toes very much swollen, and extensive suppuration from the wound. Constitution good, and general symptoms favorable; pulse 100, and of good strength; bowels have been regular, and he has been kept on low diet by the captain, who has paid every attention to him, keeping the wound clean, &c. Such being the condition of things, I decided to save the limb, if possible.

Treat.: Placed the leg in a fracture-box with movable sides, to afford free access to the wound. Cold water dressings, using occasionally cleansing lotion of chlorid. calcis. After inflammation was sufficiently reduced, made an attempt to bring the bones into coaptation; this was found to be impossible, unless by removal of the projecting ends. By means of a small strong saw of a semicircular form, which I had made for the purpose, the projecting end of the upper fragment of the tibia was removed, about an inch in length. When the granulations and integument was removed from the end of the bone, it was found to have been split up the centre of the shaft, to the extent of two inches and a half; this portion was removed as well as some other comminuted portions of bone which were discovered by means of the probe, deep in the centre of the leg. After the operation, the surrounding integuments became very much inflamed, and threatened to slough, however by the application of leeches, and the antiseptic poultice of yeast, bark, and charcoal, this misfortune was averted. During the suppuration which followed other pieces of bone came away. The leg was then placed upon a plane, with the heel elevated, and dressed daily with great care; the result was, that although the case was one of the most unpromising description at first, and there appeared scarcely any alternative but amputation, still union took place, the soft parts were completely healed, and the patient was discharged Nov. 5th, with a useful member, and but for a slight limp in his gait, owing to the shortening of the limb, the injury would not have been suspected, except by a close examination of the leg. The anterior edge of the tibia presented at the seat of fracture an interrupted line owing to the upper fragment projecting forwards and the lower one having a direction backwards. Owing to the loss of bone, I did not think it proper to make sufficient extension as to bring the leg to a corresponding length with the other; and I found, moreover, whenever I attempted forcible extension, though ever so gradual, inflammatory action was induced; obliging me to desist.

The leg, on his discharge, was two inches shorter than its fellow, but with the help of a high-heeled and thick-soled shoe he was able to walk very well; he had recovered perfect use of the knee-joint, and partial use of the ankle, which latter I did not expect, for the muscles of the leg had received considerable laceration at the seat of fracture.

ART. III.—*Surgical Cases, by* W. H. VANBUREN, M. D., Prosec. Surg., Univer. New York.

Amputation of the Index-finger, with its metacarpal bone, at the carpo-metacarpal articulation.

J. B., a single man, of strumous habit, a baker by trade, aged 27, presented himself, with an indolent, unhealthy ulceration, situated on the back of the left hand, over the centre of the metacarpal bone supporting the index-finger, which on examination was found to communicate with the metacarpal bone, which was extensively carious. A probe could be passed into an ulcerated cavity in the bone, the substance of which was preternaturally soft, and throughout its whole extent there was more or less apparent enlargement and tenderness on pressure externally. This condition of things, which originated in an indolent swelling, had continued for more than a year, resisting all the treatment addressed to it. Some years before the patient had one of his testes removed at the N. Y. hospital, in a state of tuberculous degeneration.

The disease was considered to be a scrofulous ostitis of the metacarpal bone, which at its middle portion had terminated in caries, producing ulceration in the contiguous soft parts.

The patient was advised to submit to an operation for the removal of the disease, to which, as he had no use of his hand, he cheerfully consented.

Accordingly, on the following day, (Dec. 27, 1845,) with the counsel and assistance of Professor Mott and Dr. J. W. Schmidt, I removed the index-finger, with the whole of its metacarpal bone, in the following manner. The forearm and hand of the patient being supported on a small stout table, and held by an assistant who compressed the radial and ulnar arteries with a short narrow-bladed bistoury, I surrounded the root of the finger by a double elliptical incision—as if I were about to amputate the finger at the metacarpo-phalangeal joint, according to the method of Langenbeck—commencing on the dorsum of the joint, and ending at the same point. from which the incision was prolonged on the dorsum of the metacarpal bone down to the point of its junction with the os trapezoides. The soft parts were then rapidly dissected off from the phalangeal end of the metacarpal bone, in order that it might be used as a lever, and using it thus and keeping the edge of the knife close to the bone, to avoid the deep palmar arch and its branches, it was lifted from its bed; before it was entirely free, however, from its connections, it broke at the middle, and its carpal end was seized with strong forceps and dissected from its attachments to the os trapezoides and the neighboring parts. This was luckily effected without dividing any arterial branch which required a ligature. The flaps were brought into contact, and fitting aptly, were retained by adhesive straps. At the end of a week every thing had gone on well, and the whole wound was found united by adhesion except a point at its lower angle.

About this time my patient was unfortunately exposed to a rain-storm, and in consequence his hand was attacked by phlegmonous erysipelas, which was prevented from doing serious injury, although it delayed his recovery, and from want of sufficient courage and perseverance on his part during his convalescence, in making use of passive motion, some considerable stiffness of the wrist-joint still remains. The hand is however exceedingly useful, and so slight is the deformity that it is not generally noticed, unless the attention is directed to it. It resembles exactly the woodcut (Fig. 121) at p. 248 of Ferguson's Practical Surgery, Am. ed.

Those familiar with the pages of that chaste and excellent record of practice, the Medico-Chirurgical Transactions, will remember a case related in Vol. IV., p. 309, by Mr. Wardrop, in which he exsected, in a very ingenious manner, a portion of the metacarpal bone of the middle finger, which was carious, with the hope of saving the finger. His own description of the result of his operation demonstrates conclusively the inefficiency of conservatism in such cases, and the greater propriety of removing the sound finger, at the same time with its diseased metacarpal bone, when the latter requires removal. "Upwards of two years after the operation was performed," says he, "I saw the patient. His finger was so much shortened that instead of being longer than those contiguous, as is the case in the natural hand, it was at least a quarter of an inch shorter. A fistulous opening had always continued to discharge from time to time a serous fluid, and the cavity from which the diseased portion of bone was taken continued to be filled up merely with a soft elastic mass. It may therefore be supposed that the motion and firmness of support of the finger must be extremely limited, *and that though this operation succeeded in preserving the finger, yet the member was of little use for any of the common purposes of life.*"

Mr. Liston, who grounds his opinions, it seems, solely upon his own well-earned experience, says that "a necessity seldom arises for removing the whole of the metacarpal bone of the fore, middle, or ring fingers. It is a proceeding much more frequently talked of than executed, in the living body."

He relates several cases, however, in which he has removed the metacarpal bone supporting the little finger.

I have recorded the above case for the reason that every successful result, following a partial mutilation, renders the surgeon more justifiable in attempting to save portions of an extremity, under desperate circumstances; for example, in the shattered hands we so often meet with from fire-arms, &c.; and, moreover, I am not aware that the point of practice has been settled as to the propriety of removing a sound finger with its diseased metacarpal supports, rather than to leave it as a useless member, constituting a deformity greater than its entire absence.

The metacarpal bone removed in this case was found to be in a state of chronic inflammation throughout; it was rendered porous by interstitial absorption, particularly around the course of the minute vessels occupying the Haversian canals, and in the minute cavities resulting from this absorption, pus was here and there effused. At the centre of the bone, probably the point of commencement of the disease, the inflammation had gone on to ulceration or caries, and there was no evidence that nature had made any effort to institute the reparatory process by the deposit of new bony matter.

Chronic Ostitis of the Tibia and Condyles of the Femur; Synovitis of Knee-joint; Amputation of Thigh.

Elizabeth B——, aged 16, a pale, delicate, scrofulous-looking person, has been bed-ridden for fourteen months. Four years ago she injured her knee by a fall through the ceiling of a room; it became stiff and more or less painful, and it has been necessary for her to use crutches in walking ever since. She has been under the care of several medical men at different times, and has repeatedly thought herself cured.

During a sea-voyage sixteen months ago, she caught severe cold by sleeping on the deck of the vessel, and to use her own language, it seemed to settle in her weak limb, which became painful throughout, particularly below the knee; the pain was of a dull aching character, and was worse at night. Several indolent abscesses shortly afterwards commenced forming on different parts of the limb, which, when they broke or were opened, discharged a thin, flaky pus, and refused to heal. She became rapidly emaciated, and finally hectic fever set in.

I first saw her, at the request of a medical friend, early in September, 1846, and found her at that time free from fever, under the influence of a generous diet, although very much emaciated. Her knee-joint gave her very little pain, except when she attempted to move it, when she complained bitterly; she could move it, however, slightly. The tissues surrounding the joint seemed to be somewhat thickened. On rubbing the patella against the articular surface of the femur a distinct grating could be felt. The amount of fluid in the articulation was normal. On one side of the patella was an indolent ulcer of some extent, which had existed for several months; it did not communicate with the cavity of the joint. On the spine of the tibia, just below its tuberosity was another flabby, livid-looking ulcer, at the bottom of which rough and soft bare bone could be felt. Lower down on the tibia was a fluctuating tumor, very painful to the touch, although it presented no appearance of inflammation. The whole tibia was decidedly enlarged, and painful throughout, when pressed upon by the finger. Above the knee were several fistulous openings left by abscesses, which refused to heal, and divers scars which had followed the laying open of other sinuses. The femur immediately above the joint was tender when pressed upon; none of the sinuses, however, were found to communicate with the bones, and there was no perceptible enlargement or tenderness of its shaft.

The poor girl was very anxious to get rid of her limb, and, in view of the failure of all the remedial means which had been tried, and her very slender resources of constitution, I advised her to do so, as the only probable chance of saving her life.

Accordingly, on the 14th September, with the counsel and assistance of Professor Mott and Drs. Proudfoot, Townsend, Isaacs, and Sanger, I performed the flap operation at the middle of the thigh, making the flaps above and below. After securing the arteries the flaps were united by several points of suture, straps of plaster, and the usual light dressing applied. The stump was dressed on the sixth day, and the stitches removed; union had taken place perfectly, except at one angle of the wound, which discharged about an ounce of discolored but healthy pus. The ligatures were all out on the sixteenth day, and on the twenty-second day the wound was perfectly healed, she was free from fever, and had an excellent appetite, which was liberally gratified.

Shortly after the healing of the stump, Elizabeth drew my attention to a slight periosteal swelling, which she had accidentally discovered just below the tuberosity of the tibia of her remaining leg, which was somewhat painful to the touch. Although this apparent return of her disease was not very propitious, I ordered an ointment of iodide of lead to the swelling, with iodide of potassium internally, in the dose of five grains thrice daily, with the double view of dissipating the periosteal swelling, and removing its cause, and also of inducing menstruation which had not yet occurred. To hasten the latter I ordered an aloetic pill occasionally, with a warm semicupium. This course was faithfully pursued, and at the end of three weeks the swelling and pain had entirely disappeared, and she had gained much in flesh and general appearance; the catamenia had not yet appeared. She was sent to the country, and shortly after discontinued her medicine. I lost sight of her until some weeks since, when she returned with the swelling on the tibia twice its original size, and fluctuating, and another in the same stage on the right radius. Her general health is again declining, and she has a slight cough. No catamenia as yet. Ordered syrup of iodide of iron. The prognosis at present in her case is anything but favorable.

Morbid Appearances.—On examination of the limb after its removal the femur at the point of section was found perfectly sound. About an inch and a half below this point the periosteum became slightly thickened, more vascular, and more easily detached from the bone than in its normal state; in raising it from the bone the very numerous and minute blood-vessels connecting the two tissues seemed to be evidently larger than natural, and the minute orifices by which they penetrate the bone more perceptible; here and there a bloody point was noticed —the consequence, probably, of the rupture of one of these minute vessels. The bone, although it retained its natural color and hardness, was more porous on its surface than in its natural state. On approaching the condyles these appearances all increased; the periosteum became thicker and more easily detached, the blood-vessels larger and more numerous, and the bone decidedly porous and discolored. The periosteum which was peeled off from the flat space between the condyles on the posterior aspect of the femur presented on its internal surface, which was smooth and glossy, a perfectly black patch with an irregular outline, an inch or more in diameter. As the bone with which it was in contact was neither dead nor infiltrated with pus, this appearance was probably due to cadaverization.

None of the sinuses in the soft parts of the thigh communicated with ie bone.

Around the whole of the joint the cellular tissue in contact with the endinous and capsular expansions, and ligaments, was thickened and ndurated.

A vertical section of the femur through its condyles showed an increased vascularity of the medullary membrane, and a widening in the interstices of the cancellated structure.

On opening the joint the synovial membrane presented several large patches of an unnaturally red color and an increased thickness, and at one point there was a patch about half an inch in diameter, which contained fifteen or twenty very distinct tubercular granulations. The amount and character of the fluid in the joint were not noticed as peculiar. From the articular surfaces of the femur about one-fourth of the cartilage, principally around the edges, was absorbed, and the bone left bare; here the bone appeared more vascular than natural, and soft to the touch, although it was not perforated. On the internal condyle the cartilage that remained was of a pink color, and from its free surface could be peeled a smooth, uniform, and vascular diaphanous membrane, which, I am convinced, was the synovial membrane thickened by chronic inflammation; it was apparently continuous in every direction with the synovial membrane, and presented no abrupt termination which could be detected. This appearance, however, might be viewed as a false membrane by one who doubted the fact that the cartilages of incrustation are invested by a reflexion of the synovial sac. The articular cartilages on the head of the tibia presented an eroded, mouse-bitten appearance around their edges where the bone was found bare; and that lining the patella was irregularly absorbed, apparently in consequence of constant pressure against the condyles of the femur in one position.

The head of the tibia showed still more marked consequences of inflammation throughout, than the condyles of the femur. At a point on the outside of the tuberosity ulceration had taken place, with loss of substance, which communicated with the cavity of an abscess, situated between the integuments and the capsular expansion of the joint, which contained about an ounce of ill-looking pus. This abscess would probably have emptied itself into the joint. On making a section of the bone a cavity was found in its cancellated structure opposite to the carious points; and at another part a second cavity was found containing purulent fluid, or softened tubercular matter. At several other points the cells of the thinned cancellated structure were evidently infiltrated with tuberculous matter. The body of the tibia was altered throughout by chronic inflammation; it was considerably enlarged; its surface was porous and rough, and at several points caries had commenced, *e. g.*—beneath the indolent ulcer described above, the cortical portion of the bone was gone entirely; and also beneath the fluctuating tumor, which contained illy-elaborated pus, caries had advanced to some extent. The periosteum was irregularly thickened throughout.

Pathology.—From the progress of this case previous to the operation, and the morbid appearances of the limb removed, I would induce the following pathological history of the disease.

The injury to the knee received four years ago, gave rise to an inflammation of the synovial membrane, which, at first simple and traumatic, from the strumous diathesis of the child, became chronic and unhealthy in its nature, and took on the characteristics of strumous synovitis, and about this time, probably from the irritation in the vicinity, (just as continued bronchitis induces pulmonary tuberculization) more or less tuberculous deposit was secreted in the cancellated structure in the head of the tibia, and in the condyles of the femur. The disease was then a classical "white swelling;" and the thickening of the cellular and white fibrous tissues around the joint complete its pathological characteristics. The probable termination of the disease then would have been gradual softening of the tubercular deposit above or below the joints, with a consequent destruction of the bone in its vicinity by the inflammation caused by the presence of this foreign body, and its ultimate discharge into the cavity of the joint causing an aggravation of the synovitis, which would have terminated possibly by absorption and ankylosis, probably by external ulceration, hectic, and death from constitutional irritation. The disease in the joint was proceeding to this termination with the usual indolence of a scrofulous affection, as the caries in the head of the tibia and the abscess in contact with it, demonstrate, when the patient was exposed to violent cold on board ship by sleeping on deck. This kind of exposure which we know in young strumous subjects is not unfrequently a cause of extensive necrosis, gave rise in this case to a general ostitis of the tibia and lower part of the femur—its location being determined by the presence of the tubercular deposit. The ostitis assumed, of course, the peculiar inefficient character of strumous inflammation which can neither terminate by adhesion or take on the reparatory process. The blood-vessels running through the bone from the periosteum to the medullary membrane, became permanently enlarged; their secretion of osseous matter was perverted or totally arrested, and consequently interstitial absorption went on without reparation. As medicine possesses no alterative sufficiently potent to change the character of the disease and to enable the *vis medicatrix naturæ* to restore the part to health, surgery was justified in removing it.

Wound of the Abdomen implicating Small Intestine; application of Suture to Intestine; Recovery.

At two o'clock on the morning of the 21st August last, I was called to see James Casey, a healthy man, of good constitution, 27 years of age, who had received a thrust from a dirk knife in the belly, in a row which had occurred about an hour before.

I found Casey lying on his back on a wooden bench in the barroom of a tavern, his face was pale, anxious, and covered with a clammy perspiration, and he was rolling himself from side to side, groaning bitterly, and making ineffectual attempts to vomit; his pulse was very small and rapid, I should think at least 125. On lifting the bloody towel which covered his belly, I found a mass of small intestines as large as two fists, of a dark-red color, protruding from a small wound not more than three-fourths of an inch long in the linea semilunaris of the right side, about midway between the umbilicus and the anterior superior spinous process of the ilium. In the most prominent coil of the intestine was a longitudinal wound of the same length as that in the parietes of the abdomen.

With the assistance of two medical gentlemen present, I proceeded to do what seemed necessary for the patient. In the first place I passed two points of interrupted suture through the edges of the wound of the intestine, in doing which some blood and gas escaped from its cavity; an ordinary waxed ligature of fine Italian silk was used. The mucous lining of the intestine protruded, as usual, between the edges of the wound, and before drawing the stitches tight, I was careful with the blunt end of a probe to push these edges entirely within, in such a manner that a good portion of surface of the external serous coat of the intestine, on either side, should be maintained in contact by the stitches. I then by a gentle *taxis* endeavoured to reduce the mass of intestines within the abdomen, but they had been protruded through the small opening in the parietes of the abdomen to so great an extent, during his attempts to vomit, that it was found impossible, without using more than a proper degree of force, to return them. In fact the protruded mass was thoroughly strangulated at its base, as was evident from its dark color—indicating venous congestion; that the vomiting, jactitation, and small, rapid pulse were also owing to this strangulation, will be seen shortly. I accordingly passed a curved silver director into the wound at its lower angle, and, with a sharp-pointed curved bistoury, dilated it downwards and outwards (in order to avoid the course of the epigastric artery) to the extent of three-fourths of an inch. At this moment several inches more of intestine escaped through the enlarged wound, but, by gentle and uniform pressure on the whole mass, whilst with a finger, the portion of intestine nearest the wound was little by little thrust into it, and in five or six minutes it was all passed within the cavity of the abdomen.

The external wound was brought together with three stitches, and supported by a compress, and temporary bandage. The patient was now quiet and comfortable, with no farther desire to vomit; his pulse had fallen to 68. He was ordered a full dose of laudanum, and at daylight was taken to the N. Y. Hospital.

The patient was treated in the hospital by absolute diet, rest, and opiates; and to this judicious treatment, and the absence of every thing like cathartic medicine for the first few days, I attribute mainly the fortunate result of the case.

Casey left the hospital about the middle of September—I saw him some days afterwards, and on examining the seat of the wound I found a protrusion about the size of half an egg; the tendon is wanting over a space as large as half a dollar. On leaving the hospital he was furnished with a badly-fitting truss, which, he says, gives him much pain and uneasiness; I sent him to Goulding's with the necessary directions to get a suitable one fitted to him.

No. 1 Depau Place, Bleecker Street, January, 1847.

Art. IV.—*On the Diagnosis of Nervous Diseases.* By Alexander H. Stevens, M. D. (Read before the N. Y. State Med. Society, Feb. 3, 1847.)

The usual nosological classification of diseases, is not that which the practitioner is first led to ascertain, when he seeks to discover the nature of an obscure case presented to him for diagnosis. He rather wishes to determine if the malady be nervous, inflammatory, or organic, and if so, if it be malignant. If he can advance no further, he yet will have done much, after all, that is necessary, therapeutically, in having advanced so far as to have settled to which of these classes of disease his case belongs.

It is my purpose to offer a few practical remarks, designed to aid in the diagnosis of nervous diseases. The first view of a patient suffering under a nervous disease, is not unfrequently sufficient to lead to a strong presumption as to the nature of his case. He has to narrate his sufferings and his symptoms, and often to use his eloquence to impress upon you that he is indeed a very sick person. His aspect is not that of emaciation, there is not the haggard look that comes of sleepless nights, or the wan countenance of an internal suppuration, or the leaden look of internal disorder. With faith in physic unbounded, he yet seems to reproach his former attendants for their want of skill in bringing its resources to bear upon his case. Nervous diseases present the far larger portion of strange, out-of-the-way symptoms, not to be embraced within the nosological definitions of other maladies.

Accustomed as I have been to be extensively consulted in nervous diseases, I early began to ask myself, when a case presented itself, did I ever see such a case in the hospital, or among dispensary patients, or among the poor in any of the walks of life. If not, I soon began to discover that generally it was a case of nervous disease I had to deal with.

An emaciated young man presented himself to me some years since, and in answer to my question, "What is the matter with you?" replied, "I have a stricture of the œsophagus." "And pray, my good friend, how did you find that out?" "Because I can't swallow." "And where did you learn that you had an œsophagus to swallow with?" Rather irritated, he replied, "I did not come all the way from Vermont to learn that here in New York, you may be sure; but our doctors have tried me with the probang, and I want you to do so too." "Well, tell me first, how this difficulty began?" "Why, sir, it began all at once; I could not swallow any solid food, and I cannot now." "Will you try for me?" After a very long struggle, I got him to take some roasted mutton from my table, and he went his way rejoicing. It was not a case of feigned disease, for the argument that ultimately prevailed with him, and broke his firm resolve not to endeavour to swallow, was an explanation of the real symptoms of stricture of the œsophagus—not an inability to swallow, but an arrest of the swallowed food in the course of the œsophagus.

An only child, a girl of about twelve years of age, met with a fall, and bruised the lower right side of the abdomen. The family physician made the usual applications, and treated the case as rather a serious one. Without being apparently very sick at the end of ten weeks, she yet did not appear to be improving, but maintained her position all day with the feet on the sofa, being carefully carried to bed at night. At this time I was consulted, and being unable to detect any local injury, did nothing. At the end of six weeks the family physician retired, and desired me to take the case exclusively into my hands. Another examination discovered nothing, except that her general aspect was that of good health, the legs and abdomen dropsical. In the utmost consternation, the family demanded my opinion. I asked to defer expressing it, till I had made a second visit. I cannot pretend to describe the scene, when I then said that the patient only wanted the will to get up and play as well as any of her fellows. But this opinion I had not imparted to her, and the grandmother and myself finally compromised matters, by proposing to her, to have a dance as soon as she was able to write the notes of invitation, ten days from the date of the second visit. The prescription was entirely successful, and she danced at her own ball as merrily as any of her guests.

There is a *fashion* in nervous diseases. Some years since, spinal irritation was much in vogue. Nervous persons are apt to adopt as their own, the latest forms of fashionable maladies. I have seen an incredible number of such cases, some of them bed-ridden for months and years.

Stricture of the rectum has had its day. I have seen three cases in one family, which had been treated for months, and finally got well by the failure of the head of the family in his business; thus leaving the female members no time to think of their imaginary diseases. Nervous disorders appear to be adopted either in revenge of some misfortune, or in despair from some blighted hope. They require, more than any thing else, moral treatment. The physician should endeavour to penetrate into the innermost recesses of his patient's heart, that he may fulfil the great indication, which is, *to present a powerful motive for recovery;* and he should never suffer his patient to doubt for one moment that such recovery will take place.

During the prevalence of spinal irritation, I was asked to see a lady recently from England by way of Jamaica, whither she had been sent for a supposed consumption, with spinal irritation at the same time. She had been confined to the bed, with few exceptions, more than two years. Perceiving, after a few visits, that lively conversation made her forget her ailments, and that the general assemblage of symptoms did not belong to any nosological disease, I obtained from her married sister some matters of her private history, that led me to be quite sure that her case was purely nervous. "My dear Doctor, do you know any thing that would cure my poor sister?" "Yes, I do, I am sure of it." "What! pray tell us what." "That cat-o'-nine-tails hanging over your fire-place." I will not detain you by describing the scene that followed. About six weeks afterwards I was stopped in Broadway by two highly-dressed ladies, one of whom tapped me on the shoulder, and introduced my patient to me, saying with a smile, in which the patient joined, "that last prescription cured my sister."

Of *local* nervous or neuralgic affections, these, when not organic, are seated, either, 1st, in the part where the symptoms are perceived; or, 2d, at the origin of the nerves of that part; or, 3d, in the nerves of some part going to the same portion of a nervous centre for their origin. Thus, a malady of the brain will cause a pricking, or numbness in the fingers of one side. And, as an illustration of the third class of cases, nervous pain is felt in the spine from disease of the viscera corresponding to the part, the nerves of each having a proximate origin, through the great sympathetic and the spinal marrow. So too, affections of one eye are felt and sometimes extended to the other. External injuries, and the internal injuries suffered by the organs of digestion by errors in diet, are among the more common exciting causes of local nervous affections. The joints are especially liable to these disorders. They are not unfrequently the sequelæ of sprains and of slight inflammatory affections of the joints, from other causes. As a general fact it may, I think, be stated, that they are the result of *bad treatment, hyper-medication.*

In regard to sprains, I have seen much deformity arising in the ankle-joint from a fracture of the fibula, and in the wrist still oftener from a fracture of the radius, treated as sprains. This is among the poor. But in sprains, strictly so called, it is exceedingly rare to find very long continued injuries from these accidents, except among those who can afford to nurse them.

A lady twisted her ankle severely in coming down stairs. Cold applications and rest were the prescriptions for four weeks. Her health in the meanwhile had suffered from want of exercise. The part was preternaturally cold, painful on pressure, and but very little swollen. A consultation was called, and a blister to the instep followed. When this got well, gentle exercise was recommended. This gave pain, and rest was again resorted to, and friends now came in with a thousand and one applications, a goodly number of which were tried. At the expiration of two years, her health being apparently as bad as ever, her husband, a naval officer, was lost at sea; she retired to the country, devoted herself to the education of her children, had no time to think of her lameness, and got well.

A young lady, engaged to be married, had an affection of the knee-joint, following a bruise of the part. It was kept quiet, rubbed and blistered for many months, and every suggestion was followed with all the solicitude which a strong desire of recovery could inspire. Instead of improving the joint became rather more tender and painful, after exercise; it was swollen and cold. She now came under the care of a practitioner, who rubbed and fomented it, and directed steady exercise, and saw that such exercise was effectually taken. In three weeks she got well and was married.

I visited, some twelve years since, a lady with an active inflammation of the knee-joint, and treated it successfully by rest, cupping, and blistering. Some slight injury in walking about three years since, occurred, and the same treatment was repeated, although there were very slight inflammatory symptoms. Somehow or other, the period of rest was protracted until the joint became very stiff. In this posture of affairs, I was again consulted. I directed the limb to be left to fix itself by its own weight, and used passive motion and frictions, and this, although the pain was great at times, even when the part was at rest. For I argued, that if there was any inflammatory or organic disease of the joint, going on, she would show it in her countenance, which she did not. She, too, stopped me in the street the other day, saying, "Doctor, you promised me I should dance as well as Fanny Elssler; I can't do that, but I can walk as well as any one." I am quite convinced that joint not only got stiff, but also neuralgic for want of use.

Of the frequency of neuralgic affections of the joints, the highest authority now living in a matter of this kind, (Sir Benjamin Brodie,) declares, that no less than four-fifths of all the cases of diseased joints occurring among the higher classes of society are neuralgic. Of diseases of the breast, more than half that have fallen under my observation have been of the same character.

[The following article from the pen of our able and eminently practical contributor, Prof. Beck, being the continuation of a series published in the Journal, we copy from the "Annalist." Ed. *ad int.*]

Art. V.—*On the Effects of Mercury on the Young Subject.* By John B. Beck, M. D., Professor of Materia Medica and Medical Jurisprudence, in the College of Physicians and Surgeons, of New-York.

In some previous papers, I endeavoured to point out the peculiarities attending the operation of Opium and Emetics, on the infant subject, as distinguished from the effects of these agents on the adult. I now propose to make some remarks on another article of even still greater importance, and that is *Mercury.* That mercury is an agent of immense power, either for good or evil, upon the human constitution, cannot be questioned. While in many cases it is the means of saving life, in not a few it unquestionably destroys it. If this be so, it becomes a question of the deepest practical interest, to determine whether its action is modified in any way by the age of the patient, and particularly so when it is recollected that it is given by too many physicians, even more freely, and may I not add indiscriminately, to the young subject than to the adult.

The first and most striking peculiarity attending the action of mercury is, that in young subjects it does not produce salivation so readily as it does in adults. Indeed under a certain age it appears to be exceedingly difficult to excite salivation at all in them. On this point, besides our own experience, we have abundance of testimony. Dr. Clarke says, "under various circumstances he has prescribed mercury, in very large quantities, and in a great number of cases; and he never produced salivation, except in three instances, in any child under three years of age."* Dr. Warren, of Boston, observes, "that he has never known an infant to be salivated, notwithstanding he has given, in some cases, large quantities with this view."† Mr. Colles, of Dublin, says, "no man in the present day requires to be told that mercury never does produce ptyalism, or swelling and ulceration of the gums in infants."‡ Drs. Evanson and Maunsell speak still more strongly. They say, "mercury does not seem capable of salivating an infant.

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* Commentaries on some of the more important Diseases of Children. By John Clarke, M. D., p. 182.

† View of the Mercurial Practice in Febrile Diseases. By John Warren, M. D., p. 146.

‡ Practical Observations on the Venereal Disease and on the use of Mercury. By Abraham Colles, M. D., p. 171. Amer. edition.

We have never seen it do so, nor are we aware of any such case being on record." "We have never succeeded in salivating a child under three years of age."||

The same general fact seems to be applicable to the external use of mercury. Dr. Percival, of Manchester, remarks, that he "repeatedly observed that very large quantities of the Unguentum Cœruleum may be used in infancy and childhood, without affecting the gums, notwithstanding the predisposition to a flux of saliva, at a period of life incident to dentition."¶

That salivation does not take place so readily in the infant as in the adult would seem then to be well established. That it never can or does take place, as might be inferred from some of the preceding quotations, is by no means, however, true; and the statement, if implicitly relied on, is calculated to be the cause of much mischief. That very young subjects do sometimes become salivated, is unquestionable. One case, and only one, however, has occurred in my experience, in which a child of two years of age was salivated, and that by a very moderate quantity of calomel, viz., five grains, given in three portions, at intervals, within the space of about twelve hours. In about two days after, the gums became inflamed, the tongue swelled, several ulcers appeared in the mouth, and the flow of saliva was free; after continuing about three days in the same state, it gradually yielded, and disappeared without any further inconvenience. In this case everything seemed favorable to the development of mercurial action. The child had been laboring under whooping-cough for several weeks, and was a good deal reduced. It vomited freely with every paroxysm of coughing, and this no doubt aided in bringing on salivation, in a constitution peculiarly sensitive and evidently scrofulous. Nor is this a solitary case. Dr. Clarke, already quoted, admits that in three cases salivation was produced in children under three years of age. And similar cases have been observed by others. Dr. Blackall relates the case of a child, two years of age, who was salivated in consequence of taking two grains of calomel for several successive nights. The child was a poor scrofulous subject, and it sunk under the effects of the mercury.

This, then, is a remarkable peculiarity in the action of this agent upon the infant subject, and the observation of it has doubtless led to the belief, too prevalent among some physicians, that it may be given to them to almost any extent with perfect impunity; an error which, if not in its immediate, yet certainly in its remote effects, has been the prolific source of more mischief, probably, than any of us are aware of.

Although mercury so seldom salivates infants, yet, notwithstanding this, it cannot be doubted that it affects the system profoundly, and even more so proportionally than it does the adult. That it should do so appears perfectly natural, when we reflect upon the mode of its operation on the human system. On this subject I am aware that a great difference of opinion exists. By some, mercury is looked upon as a stimulant, while others view it as a sedative. A familiar acquaintance with its effects, however, will show, I think, that it may be the one or the other, according to circumstances—according to the dose in which it is given—

|| Treatise on the Management and Diseases of Children, p. 88.

¶ Essays, Medical and Philosophical. By Thomas Percival, M. D., vol. 2. p. 318.

the length of time it is continued, and more especially, the condition of the system at the time of using it. A single large dose of calomel will cause nausea and relaxation, and sometimes unpleasant prostration, while if it be given in smaller doses, and repeated frequently, it will occasion irritation of the intestines, and general disturbance of the vascular and nervous systems. In the former case acting as a profound sedative, and in the latter as a stimulant, or rather irritant. That calomel given in large doses operates as a sedative, seems to be proved, not merely by the nausea and prostration which it frequently produces, but by other considerations. In dysentery, for example, in the adult, a dose of twenty grains of calomel will sometimes allay pain and irritation, with as much certainty as a dose of opium. For the purpose of testing the effects of calomel, some interesting experiments were made by Mr. Annesley, which would seem still further to show, that in large doses the action of this agent upon the mucous membrane of the stomach and intestines, is that of a sedative. He took three healthy dogs, and gave to one ʒj. of calomel, to a second ʒij., to a third ʒiij. After this they were tied up in a room.

"The dog which took ʒj. did not appear to feel any kind of sickness, till six or seven hours afterwards, when he vomited a little. He was lively the whole time, and ate his food well; had been purged two or three times; dejections of a black gray colour.

"The dog which took ʒij. was likewise lively, and ate his food well, vomited two or three times, and was purged more than the other; he passed tape-worms and the dejections were black.

"The dog which took ʒiij. was heavy, and apparently uncomfortable the whole day, and did not vomit at all; he was purged, and passed a very long tape-worm; dejections also black."

Twenty-four hours after they had taken the calomel, the dogs were all hung, and five minutes after they were dead they were examined, and the vascularity of the stomach was found to be in the inverse ratio of the calomel they had taken; i. e. in the dog which had taken ʒiij. the vascularity was the least, and so on. For the purpose of comparing this with the condition of the stomach of a dog which had taken no calomel at all, an examination of another dog was made, and here the stomach was found to be *more vascular* than in any of the others. From these experiments Mr. Annesley drew the conclusion, that "the natural and healthy state of the stomach and intestinal canal is that of high vascularity, and that the operation of calomel in large doses is directly the reverse of inflammatory."*

The foregoing considerations would seem to show that calomel in full doses is a local sedative, and in its general effects is debilitating to the system at large. Hence its great utility and value as a remedy in many inflammatory diseases.

When, on the other hand, it is given in small and repeated doses, it acts not unfrequently as a local as well as a general irritant, producing immoderate action of the bowels, and general irritation of the nervous and vascular systems. Now these, we know, are the effects observed continually in the adult, and it is but reasonable to suppose that all of them must, as a matter of course, be aggravated in the more delicate and sensitive system of the infant.

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* Transactions of the Medical and Physical Society of Calcutta. Vol. 1, p. 211.

What shows incontestibly that the action of mercury is actually more energetic on the infant than the adult, is the fact, that when salvation does take place in the former, as it sometimes does, its effects are most disastrous. Sloughing of the gums and cheeks, general prostration and death, are by no means uncommon occurrences. On this subject, Dr. Blackall justly remarks, "a general opinion prevails, that the constitutions of young subjects resist mercury. Its entrance into the system they certainly do resist, more than we could expect; but they are greatly overcome by salivations, and the possible occurrence of such accidents may well set us constantly on our guard."* Dr. Ryan, too, says, "Ptyalism of infants is often followed by sloughing of the gums and cheeks; and this I have known to occur after the use of it in hydrocephalus."†

Besides being more energetic in its action on the infant, mercury is also more uncertain. This must necessarily be the case, and for the same reasons that every other active agent is so. In the adult we know that mercury varies in its effects according to the condition of the system, and the peculiarities of the patient's constitution. Thus some persons are salivated, by the smallest quantity of this metal, while others resist the influence even of the largest quantities. In some, febrile action, in others, diarrhœa and exhaustion, take place, even from moderate doses. Hence it is, that every prudent physician, if unacquainted with the previous history of his patient, makes it a special subject of inquiry, to ascertain whether he has ever taken mercury previously, and how it affects him. Now, in the young infant, of course, as we cannot so well have the benefit of this information, more uncertainty must necessarily attend its operation.

These, then, are the peculiarities attending the operation of mercury on young subjects, viz.: that they are salivated with great difficulty, and that, notwithstanding this, the effects of it are frequently more energetic and uncertain, than they are in the adult. And it is upon these as the basis, that I propose to make a few remarks, bearing upon the practical application of it in young subjects.

1. If salivation occurs so rarely in children under a certain age, then it is evident that it can never be made a criterion by which to judge of its influence on their systems. To attempt, therefore, to produce this effect, as we do in adults, is manifestly improper. In cases where it is desirable to get the system under the full influence of the remedy, other modes must be resorted to for the purpose of judging to what extent the use of the article should be carried. Now this is by no means easy. Even in adults, where we have the benefit of salivation as a test, all practical physicians are aware how difficult it is, frequently, to decide when it is proper to stop the use of the remedy. How much more so must this difficulty be increased in the young infant, where we are left without this guide. The only modes of judging, of course, are the character of the evacuations from the bowels, and the general impression made upon the disease for which it is administered. Both these are evidently, however, uncertain. It is to be feared, therefore, that for want of a more certain guide than we at present possess, the use of this remedy is, in many cases, unnecessarily pro-

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* Observations on the Nature and Cure of Dropsies. By John Blackall, M.D. p. 126.

† Manual of Midwifery. By Michael Ryan, M.D., p. 477.

tracted, to the great detriment of the little patient. From all this the conclusion is obvious, that in the use of this article in the young subject, much greater caution is necessary than in the adult.

2. The fact that mercury may prostrate and destroy a young child, even though it does not cause salivation, it is to be feared is not sufficiently appreciated, at least by some. We have known calomel given without weight or measure, to a young child, and the reason assigned to justify it was, that it could do no harm, because it would not salivate. Now it appears to me that no opinion can be more unfounded, and no practice so mischievous. Although a single dose of calomel, even though large, may be well borne by children of ordinary strength and constitution, yet even this is not entirely safe in all cases. And when these doses are frequently repeated, particularly in delicate habits, the most serious consequences may result.

3. The use of mercury in young subjects as an alterative, should in all cases be conducted with great caution. There is no practice more common than that of continuing the use of this agent in small doses, for a considerable time, and certainly none which is more liable to abuse. Under the idea that the dose is so small and from no salivation appearing, we are apt to infer that even if the medicine is not doing any good, it is certainly not doing any harm. Any improvement, too, which occurs during the use of the article, is sure to be attributed to the silent operation of it on the system. Now although this is not unfrequently the case, yet it is not invariably so ; and every observing physician must have been aware of cases, in which, in this way, the article has been unnecessarily and injuriously continued. In bowel complaints, under the idea of altering the secretions, it has frequently, no doubt, helped to keep up the very intestinal irritation which it was given to correct. In other cases it has developed the latent tendency to other diseases, such as Scrofula, Phthisis Pulmonalis, etc. In adults we know this to be very often the case. How much more likely is all this to happen in the young infant.

4. In the use of mercury in young children, great care should be exercised in ascertaining, as far as possible, their constitutional peculiarities. This, of course, is not in all cases easily to be done. A good deal, however, may be learned from an acquaintance with the tendencies of the parents. Wherever the parents show indications of scrofula, or where there is an hereditary predisposition to consumption, great caution ought to be exercised in the use of mercury in their offspring.

5. Mercury should be administered with great caution, in cases where a child has been sick for a considerable length of time, and when the strength of the child has been very much reduced. In this state of constitutional depression, a single cathartic dose of calomel sometimes proves fatal. We think we have seen more than one case, in which a child has been irretrievably prostrated under these circumstances, under the false impression that calomel is an innocent purgative to a child.

6. The too common practice of giving calomel as an ordinary purge, on all occasions, is certainly unjustifiable. From the facility with which it may be given, it is unquestionably resorted to in a great number of cases, where it is certainly unnecessary, and in a great number where it positively does harm. The misfortune is, that its use

is not limited to an occasional dose, but it is too often given in every slight indisposition of the child. Now, in this way, there can be no question that the use of it has laid the foundation for the ruin of the constitutions of thousands. It ought to be a rule laid down and rigidly followed, that in very young children, mercury ought never to used as a cathartic, unless there is a special reason for resorting to it. In a great majority of cases, milder cathartics are decidedly to be preferred.

In concluding these observations, I trust it may not be supposed, that my intention has been to undervalue the importance of mercury as a remedy in the diseases of children. On the contrary, no one appreciates it more highly than myself. In many cases, nothing can supply its place, and its judicious use has been, and is, the instrument of saving multitudes of lives. Notwithstanding, however, the many cautions to the contrary, it is to feared that the use of it is still too general and indiscrimate. Indeed, the amount of it which is taken by the human race in one way or other, is incalculable. What is given by regular physicians, is perhaps the smallest quantity. If the public really knew how much of this article is swallowed unknown to themselves, in the shape of bilious pills, worm lozenges, and the white powders of the Homœopaths, they would be amazed at their credulity in deserting their old medical advisers, because they have the boldness to give them an occasional dose, and the honesty to tell them so.

Art. VI.—*An Address delivered before the Oneida County Medical Society in January last, on the Treatment of Rheumatism.* By J. Knight, M.D.

Mr. President, and Gentlemen of the Society,—According to the by-laws of our society it becomes my duty to address you at this time upon some subject connected with our profession, and in obedience to that duty I beg leave to offer a few thoughts, the result of my experience in the treatment of rheumatism. I will not take up your time by going into a minute history of the disease, nor do I pretend that I can add anything *new* respecting its pathology, but having noted with some care several facts respecting its increase of late years within the circle of my business and acquaintance, and also the result of several kinds of treatment, I have determined to avail myself of the present opportunity to lay them before you.

The causes of acute rheumatism, as laid down by most authors, are, cold applied to the body in various ways; such as, wearing wet clothes, lying in damp linen, sleeping on the ground, &c., or hereditary predisposition. The agency of cold as an immediate cause is obvious to every one; and from what I have seen I have no doubt but that a predisposition is sometimes laid in organization. I am strongly persuaded too, that, as Dr. Dunglison remarks in his Practice of Medicine, "predisposing agencies must exist, which are by no means easy of appreciation." From the year 1821 (the commencement of my medical pupilage), and as far as my memory goes back of that time, up to 1830, a period of more than ten years, I do not recollect to have witnessed a single case of well-marked acute rheumatism. But since 1830 to the present time, the disease has occurred more and more frequently every succeeding year. I wish to be understood at all times as referring to the same district of country. What the agency was which produced the difference I will not now undertake to say, but one thing is certain, that, during the period first spoken of, the causes to which the disease is commonly attributed produced something different from rheumatism, while the same *apparent* causes in later years have been producing it in an increasing ratio. This has confirmed me in the belief, that much is yet to be learned respecting, at least, the remote cause or causes, and the mode of their operation, which are concerned in the development of this severe and painful disease. It is true also, that during the time in which we enjoyed an almost entire immunity from rheumatism, that scarlet fever was not seen at all. Indeed, the first well-marked case of scarlet fever which I ever witnessed was in 1829. The same remarks will apply to erysipelas, with a very few exceptions; and those of the chronic variety. In the winter of 1830 and '31, scarlet fever, for the first time in many years, spread generally over our section of country. It again showed itself in the winter of 1833 and '34; and again in December, 1839, it commenced, and continued until late in the spring of 1840, and has occurred occasionally between the periods spoken of and up to the present time. Since the year 1834 sporadic cases of erysipelas have occurred more and more frequently up to 1842, when epidemic erysipelas first made its appearance. During the last ten years I have seen cases so frequent as to arrest my attention, of rheumatism and erysipelas coexistent with each other in the same individual, and both well-marked. I have also seen cases of a disease which was apparently of a mongrel character, resembling both scarlet fever and erysipelas, and repeated instances where rheumatism was one of the sequelæ of scarlet fever.

The occurrence of these facts in the order in which I have named them—the *mobility* (as it is termed) characteristic of each of the diseases in question—the probability hinted at by many authors, that they are all essentially seated in the nervous system, and that the sanguineous system is affected secondarily—together with the fact, that each of them, although considered to a certain extent inflammatory, is yet by *all* conceded to be peculiar, requiring a sparing use of the lancet, and antiphlogistics generally, and often an opposite mode of treatment —has led me to query whether a common *predisposing cause* might not be concerned in the development of each.

The section of country to which I refer for the phenomena detailed is in the south part of the town of Paris, and the adjoining north part of the town of Bridgewater, in this county, on the height of land which gives rise to the head waters of the Mohawk and Unadilla, abounding in small rapid streams, with no swamps for the generation of miasmata, and where intermittents never originate.

It would be in vain in me to take up your time with an enumeration of the various modes of treatment which have from time to time been adopted by different practitioners, according to their various theories, varying from the most ultra antiphlogistic, to its most ultra opposite. The plan of treatment which I adopted with the first cases which came under my care, was the antiphlogistic: being that which I was taught by my reading—my medical preceptors, and the professors to whom I had listened at the medical institution. I commenced with much confidence, seeing, as I *thought*, enough of inflammation in the symptoms, to warrant thorough depletion, but the result was unsatisfactory both to myself and the patient for whom I prescribed. I had read, it is true, of the success which had attended the opposite mode of treatment, by the free use of cinchona, as adopted by Fordyce, Willan, Haygarth, and a host of others celebrated in the annals of medicine; yet I had acquiesced in the *then* common sentiment, that this somehow was an exploded system—like that which had prevailed respecting the use of the same article in the treatment of fevers of an inflammatory character. Subsequently to this, I noticed several cases of rheumatism, which had resisted the *repeated* and *thorough* use of the antiphlogistic plan, which finally went into the hands of quacks, and which to my surprise, rapidly improved under a stimulating course of treatment. While these things were passing around me, I was led to review the opinions I had previously formed, and to question with myself whether there was not *indeed* something peculiar in this disease which might require a course of treatment, *not* exactly in accordance with its apparently inflammatory character. I could not, however, divest myself of my previous opinions; for when the next case of rheumatism presented itself, I commenced its treatment with bleeding, active cathartics and diaphoretics followed with the use of tinct. sem. colchicum and digitalis. The patient was a woman of about 35, spare habit of body, general good health, and who had borne several children. The symptoms continued with very little change, except the rapid loss of strength, when I finally determined upon a vigorous use of the cinchona. I commenced with drachm doses, combined with 5 grs. of nit. potassa, once in four hours. The pulse, when I commenced its use was 125, the tongue coated and moist, with moderate perspiration, and the disease pervading apparently every joint of her upper and lower extremities. The benefits of the medicine were visible in 12 hours, and became more and more apparent at every dose of the bark. The pulse became slower, softer and fuller; the tongue cleared, and the appetite returned rapidly. She soon recovered her usual health, and has never had an attack of the disease since. The result in this case was so favorable, that I determined to try the medicine again the first opportunity that should offer, notwithstanding I had some suspicions that this might be a peculiar case—an exception to the general rule, and that possibly the other medicines had done the work, while the bark had stepped in and taken the credit of the cure. The next case was that of a healthy robust farmer, whose symptoms at the commencement, were of a highly inflammatory appearance. The treatment was commenced with bleeding, and as the appearance of the tongue and bilious tinge of the surface indicated biliary obstruction, it was followed by a cathartic of calomel and castor oil, succeeded by diaphoretics and colchicum. The operation of the calomel produced a better appearance of the tongue and surface, but the other symptoms remained much the same. He had profuse perspiration, and the colchicum operated upon the bowels, but no relief followed from either. I then commenced the use of the bark in drachm doses, combined at first with crm. tartar, and afterwards continued the use of the cinchona alone. The effect was very striking, and the recovery rapid, until he carelessly went out and walked from his house to his barn, which brought on a relapse. A brisk cathartic of jalap and crm. tartar and a renewed use of the bark, completed the cure, and in this case there has been no return of the disease up to this time.

The third case which occurred, was that of a lad of some 14 years of age, whose health had generally been good—of a nervous temperament, and exceedingly restless and uneasy. Notwithstanding the pulse was 120 to 125, I determined in this case not to bleed. I commenced with a dose of calomel, and immediately followed with the bark in doses of 40 grs. once in four hours, alternated with a teaspoonful of *spts. nit. dul.* The convalescence was rapid and uninterrupted, and the patient has subsequently enjoyed an entire immunity from the disease.

The fourth case, was that of a woman of about 45 years of age, who had been suffering from repeated attacks of rheumatism for nearly a year. She had had no regular medical attendance; but had followed the prescriptions of all the persons with whom she had conversed, (and they were *not* like "angels' visits") and each one had a sovereign remedy for the disease. She had grown gradually worse, and the disease was assuming a chronic form. She had at the time of my first visit, a new attack (as she termed it) from exposure to dampness and cold, and several of the joints, both of the upper and lower extremities, were swollen and very painful. Her pulse was from 100 to 110 and wiry. She was bled, and as the bowels were very costive, a cathartic of jalap and calomel was administered. She was then put upon the use of the colchicum until it affected the bowels. I then commenced with the bark in combination with crm. tartar. The usual good effects were speedily seen, and she was soon able to move about her house, and attend to her domestic concerns. Being the mother of a large family of children, and naturally careless of herself, she had several relapses, owing to over-exertion and exposure. The same remedies, or, a part of them, according to symptoms—(sometimes the colchicum followed by the bark, and sometimes the bark alone,) never failed to give relief. I will mention but one more case,—that of a young man about 30, of strong constitution, and general good health, and who had scarcely ever before known what it was to be confined with sickness. The attack was severe, and inflammatory symptoms were very prominent. He was bled—had a cathartic of calomel, and was put upon digitalis in decoction, which was continued until the arterial action was very sensibly under its influence. After suspending the digitalis, his pulse was rapidly returning to its former high standard, when I commenced the use of the cinchona in drachm doses once in six hours, and he began to mend rapidly. The bark was discontinued for a few days, but indications were soon visible of a return of former symptoms. The bark was again resorted to, and relief followed as promptly as before. The cure was finally complete, although lameness of the ankles remained a short time after other symptoms had entirely left him. It is proper to state, that in all these cases, the various washes, liniments, and other external applications in common use, and blisters in two of them were used with little or no benefit. Dover's powder was also administered at night with very good effect in procuring rest. I have used the cinchona in various other cases with more or less success in every instance. I have now no recollection of a single case, in which there was *no* good effect followed from its use. After having tested the virtues of this medicine several times, I was naturally led to conclude that the quinine would be preferable to the bark, having the advantage in pleasantness and quantity. Several trials were made, but it did not fulfil my expectations. Although the effect was rather favorable as far as it went, the bark in my judgment was decidedly superior; for what reason, I will not now undertake to determine. I at first found some little difficulty in inducing patients to take the bark in substance in such doses, owing to the prejudice very generally existing against it, especially with those who yet remember the time when it was so freely prescribed, and with such ill success, in fevers of a former day. I have however almost uniformly found it to agree well with the stomach, and the appetite generally improves under its free use. From observation also, I am satisfied that those who use this article, are much less liable to a relapse, or to a return of the disease at any time afterwards, than those who are treated otherwise.

It will be seen from what I have stated, that in all the cases but one to which I have referred, that bleeding and other evacuants preceded the use of the bark, and the cure may be principally attributed to them. It is not my purpose to condemn the use of the lancet at the outset of this disease,—on the contrary, I believe it will be found beneficial in highly inflammatory cases if resorted to early. But it is certain, that in each of the cases to which I have referred, nothing seemed to remove the symptoms until the bark was used, and that then improvement was immediately visible, and continued to mark its administration. It is also true, that in each instance, the use of the bark was commenced while the pulse was much above the natural standard, and other apparently inflammatory symptoms remained, and that all of them rapidly subsided under its influence. I will not undertake to assert with Dr. Haygarth, "that bark does not so certainly and so quickly cure an *ague* as it does the acute rheumatism;" yet what little experience I have had, has fully convinced me that, not only (as Dr. Dunglison remarks,) "is this inflammation peculiar, and like the inflammation of erysipelas, it may not always require the vigorous use of antiphlogistics," but that it will very rarely bear their *continued* vigorous use, and in a majority of cases benefit will be derived from adopting its opposite in a short time. I owe an apology for the hasty manner in which these thoughts have been thrown together, but hope that others better qualified, and possessing greater facilities than myself for investigating this important subject, may be induced to engage in it; and the result, I am quite confident will demonstrate, that although the bark may *not* be found to be a *specific* in acute rheumatism, it may yet be made to subserve an important purpose in its treatment.

Art. VIII.—*Remarks on the Effects of the Oil of Hemlock upon the Human Subject.* By J. S. Paige, M.D., of Oswego, New York.

In the summer of 1845, I was called in great haste to visit Mrs. M., aged about 25 years, the mother of two children, who was taken suddenly and severely ill; I was soon by her bedside, she living but a short distance from my house.

I found her in an almost insensible state, her pulse about 80, full and strong, much heat upon the surface, which was universally covered with a uniform redness or blush, resembling that which we observe in the first stage of scarlet fever, before the distinctive eruption appears; the face generally, and the eyelids in particular, were very turgid, there was a livid dark color of the epithelium, the vessels of the conjunctiva were much injected, and the pupils contracted and immovable.

It was impossible to arouse her, and obtain intelligible answers to my questions, whereby I might be enabled to draw up a satisfactory diagnosis, nor was I any better informed by the attendants present, who were entirely ignorant of the cause of her illness.

There was no stertorous breathing, or any symptom of simple narcotic poisoning except the insensibility, which I regarded, in connexion with the other symptoms enumerated, as arising from the action of an acrid poison possessing, at the same time, very stimulating properties. I proceeded immediately to open a vein, and take away about twenty ounces of blood, which presented a very florid color, and remained a long time without separating into clot and serum; I then directed the administration of a large dose of the sulphate of magnesia, cold applications to the head, and a warm foot-bath; when the husband, who had been a very short time absent, coming into the room, informed me that his wife, supposing herself a few weeks advanced in pregnancy, had that morning importuned him to procure for her some of the oil of hemlock (pinus Canadensis), that by its use she might rid herself of what she deemed a burden and a curse; he remonstrated, but she was inexorable, and at length he complied with her wishes, by procuring and handing her the oil; this was a short time before dinner, and soon after he lost sight of his wife, and could not find her about the house, and being anxious on her account, commenced a search, and through a crevice in an out building, the door of which was fastened inside, he discovered his wife lying upon the floor within in the condition I have described; he had her conveyed to her room in the dwelling, and ordered me to be sent for.

I could not arrive at any certainty with regard to the quantity of the oil taken; the patient represented to me, after her restoration, that she had taken six drops, but I cannot think that so small a dose should produce so violent a train of symptoms.

The blood-letting produced immediate good effects, and very considerably mitigated the violence of the symptoms; and by the application of cold to the head, and the warm foot-bath, together with the free operation of the Epsom salts, followed by other antiphlogistic remedies, the patient was restored to a comfortable state the same evening; but the effects upon the nervous system remained for a considerable time; there was a great obtuseness of intellect, and the memory appeared defective for many days or weeks.

The object for which the drug was taken, was accomplished, but at what time the abortion took place I have never learned, as I have never inquired of either the husband or the wife, and they have never adverted to the subject, in my presence, since the day of the *performance*, when I took occasion to give a most earnest professional and moral lecture to the lady upon the danger and immorality of such a proceeding. The principal performer in the drama has since conceived, gone through a regular term of gestation, and been delivered of a healthy child.

This case is almost an exact type of other cases of the kind that have fallen under my care, and I have been led to think that, perhaps, a description of this might be not altogether without its use to some of the younger members of the profession in a practical point of view, while it might also throw some light upon the peculiar action of this agent upon the human system.

Several other of the essential oils have often been resorted to for similar purposes, but as it has never been my fortune to witness their effects personally, I am unable to state how nearly they resemble those produced by the one above-mentioned.

The person who was the actor in this affair is in all other respects a most worthy woman, and appears to have partaken of a monomania, if I may so call it, which prevails here as well as in other places, among a certain grade of moralists who regard homicide no murder, unless the victim have arrived at mature age, and is able to appear in goodly apparel.

If rumor speaks truly, and from the little I know I believe she does, there are persons in this community, even in communion of the Christian church, who countenance and practise this outrage upon nature and morals, from the inconvenience of bearing and rearing children; and if people thus situated sanction and practise such an enormity and for so trifling a consideration, what an influence will, by its means, be brought to bear upon other orders of society who will be led to resort to the same means for the purpose of throwing this crimson mantle over their other crimes?

I know many persons who suppose that it is a proper and legitimate part of a physician's profession, to engage in this unhallowed work of destruction if they are compensated by a fee a little more liberal than that for opening a boil or extracting a tooth. And I have heard it pleaded also, that it was a physician's *duty* to interfere in certain cases of a peculiar kind, in order to sustain the *reputation* of the *unfortunate!*

There are some in the ranks of the profession of medicine in many communities, who are ever ready to lend a helping hand to the commission of a crime made eminently penal by the laws of the land, revolting to nature, and in derogation of the order that God has enstamped upon all his works; and this too, for the trifling consideration of the merest mite of filthy lucre.

I have been led into this train of reflection from what has come to my knowledge in the thirty years of my life devoted to the practice of medicine; for where the practice of procuring abortion has been resorted to, unless with the sole aim of saving the life of the mother, destruction has been the consequence; destruction of the fœtus and perhaps of the life of the mother also, and the destruction of the character of the practitioner, of his usefulness and his comfort; and I have known many cases where the lives of such were suffered to be closed in misery, want, and the lowest degradation, and the contempt of mankind.

The practitioner of medicine, to be useful, must be free from any contamination of this sort, and the society which supports and sustains him, in its own inherent right, demands of him a character of unspotted integrity and moral worth, and this he must yield obediently and cheerfully, or his claim for confidence and support is not founded in right, and is therefore invalid.

Art. X.—*Deficient Palate, involving entire Loss of Speech, successfully remedied by* Warren Rowell, of New-York, Dentist. Reported by John H. Griscom, M.D., Physician of N. Y. Hospital.

Skill and ingenuity in remedying deficiencies of substance in the human body, have of late years arrived to such perfection, that losses of many important parts, even those which are essential to one's protection as well as comfort, are deprived of much of their terror and unpleasantness. Who, for instance, does not feel that though his teeth may all decay away, his mouth may ultimately be replenished with a perfect set, as useful, more beautiful, and more durable than the original; and how completely is old age robbed of some of its most impressive features—the sunken lip and hollow cheeks, by a mouthful of handsome incisors and grinders. We saw, a few days ago, a gentleman walking with a lady, and it was only from a peculiar position we were in we discovered that he had an artificial leg; his gait, upon very close scrutiny, gave scarcely any evidence of it. The loss of a nose is a matter of but little moment now, indeed, it may be a matter of congratulation, since the veriest "pug," may be replaced by a stately "roman." New eyes have we ("though they see not"), new arms and hands, and surgery can furnish new lips and cheeks. It gives pleasure to be able to record any new step in this important branch of art, especially when it is applied to remedy a defect of so serious a character, as a total loss of speech. The restoration of this function, when it has been totally lost, especially when the loss is occasioned by the absence of important vocal organs, is a triumph, as new, as it is effective, and the means ingenious and simple. But our admiration of the ability of the artisan is greatly increased, when, as in the following case, the loss appears irreparable by ordinary skill, and our native pride is excited by knowing the operator is an American.

The case which elicits this article, is that of a gentlemen, who by an ulcerative disease, lost the entire roof of the mouth, except the palatine bones A large portion of alveolar ridge, all but four teeth in the upper jaw, the vomer, and the lower turbinated bones, were carried away before the disease was arrested; he was thus left in a most deplorable condition. The two great cavities of the mouth and nose now mingled into one, formed a chasm, whose frightful appearance can only be appreciated by those who may have witnessed similar cases. The destruction of these parts, involved necessarily an entire loss of the voice, and caused great trouble and difficulty of deglutition. It was as impossible for the patient to speak as if he had been born dumb; and in consequence of there being no resisting surface for the movements of the tongue, it was almost impossible for him to carry his food back to the œsophagus; it would more easily ascend into the nose.

Before describing the means adopted for remedying the deformity in this case, a glance at the efforts made previously in similar cases, with their results, will be instructive.

The earliest attempts to remedy this very important deformity, were of the rudest kind. Ambrose Parè, constructed a plate of gold or silver, to which was attached at its upper surface a piece of sponge so arranged, that its expansion by the absorption of the moisture of the nostrils, would cause it to rest on the lateral parts, and thus prevent the plate from falling. This not only became insufferable from the offensive odor produced by the stagnant fluid in the sponge, but it had the effect of gradually enlarging the palatine opening. M. Baillif, a dentist of Berlin, reports a case, in which, by this mode of treatment, the opening increased from a moderate to an irremediable size, and the situation of the patient became such, that she could not articulate a single syllable ; all the sounds that she could utter, by any effort, amounted to no more than a kind of bellowing. A few similar results, compelled the abandonment of that method of relief. The mode next adopted, was, in those cases which permitted it to attach to the edges of the plate, lateral branches, by which it was supported upon the teeth by ligatures, but as these ligatures produced great irritation of the gums, and were insufficient to keep the plate steady and firm in its place, the plan was not favorably received. This difficulty was, in a measure obviated, by the substitution for the ligatures, of clasps, or springs, which, by firmly embracing the teeth, held the plate more firmly in its place.

This plan was defective, so far, that it allowed a hollow place, a shallow *cul-de-sac*, above the plate, where mucus and other fluids were likely to collect and stagnate. This, again, was avoided by adding to the top of the plate a drum, which, to use the words of the inventor, (Delabarre,) " resembles a man's hat, the crown of which is very low, and enters the opening," It was fastened to the plate by means of screws, several of these of different sizes, were furnished, to be accommodated to the decreasing size of the opening, for it appears to be established, that unless kept open by force, these palatine orifices, will after the cessation of the cause which originally produced them, gradually become smaller.

It is, however, plain, that this ingenious contrivance of Delabarre, of employing clasps to sustain the obturator, is useless, when the teeth have been swept away together with the palatine processes by the ulcerative action. This is very often, it may be said, generally, the case, and for those who have unfortunately been in this predicament, there does not appear on record any means of relief. The elaborate, and able work, on the Natural History and Diseases of the Human Teeth, by Joseph Fox, M.R.C.S.,L., republished by Chapin. Harris, M.D., Professor in the Baltimore College of Dental Surgery, from which the above brief historical sketch has been taken, describes a plan of Delabarre, by which the palatine plate, with artificial teeth attached, was supported by springs, resting against the lower jaw, which must be, at best, a very awkward arrangement for the patient, though it is not stated to have ever been adopted.

Beyond these attempts, there does not appear to have been anything done towards repairing, permanently, this exceedingly disagreeable deformity, until recently in this city, in the case before us, for which Warren Rowell, a dental operator of much ingenuity and skill, has contrived and put in execution a plan which has completely succeeded.

The principal difficulty to be met and overcome in this case, was the absence of the teeth, which deprived the artist of that means of supporting his obturator, as the instrument is technically called.

Another, was the great size of the cavity at its upper part, caused by the removal of the vomer and turbinated bones. A simple plate, to complete the arch of the mouth, if it could have been kept in place, would have formed a very large *cul-de-sac* above for the reception and stagnation of the fluids secreted by the remaining portion of the Schneiderian membrane, while it was necessary to diminish the nasal cavity, in order to make vocalization perfect. Another, though a minor difficulty, was the necessity of complicating the artificial palate, with the teeth necessary to supply the deficent natural teeth.

All these troubles, however, by careful examination, and patient study of the case, and ingenious contrivance, were successfully overcome. On closely examining the edge of the palatine aperture, Mr. Rowell found its posterior portion formed to a considerable depth, of a semi-cartilaginous substance, possessing sufficient elasticity to allow a body larger than the opening to be be pushed up through it, and that when so forced up, it would be supported above the aperture, by the edge returning to its original position. A means of supporting a light plate was thus presented, and a successful result was hoped for, if the obturator could be so shaped when pushed up through the aperture, as to enable it to catch against, and rest upon this cartilaginious ledge. The patient being an intelligent man, rendered the operator much assistance in his manipulations and contrivances.

The first step was to obtain a cast in wax, not merely of the shape and size of the palatine aperture, but also, in connection with this, of the *filling in* of the nasal cavity, necessary both for the purpose of perfecting vocalization, and shaping the instrument so as to rest and support itself on the soft palate. This was a work of much difficulty, and requiring several efforts, but was finally successful. From this wax form, a plaster cast was made in the usual manner. The gold obturator, which is the result of this artifice, consists, 1st, of a plate sufficiently large, to extend beyond the palatine opening, embracing the gums in front, where is attached, a handsome row of teeth. From the upper surface of the plate, rises an irregularly-shaped bulb; the neck or peduncle of this, by which it is attached to the plate, is of the size and shape of the aperture, while its body or fundus is considerably larger, the enlargement increasing suddenly, especially at the posterior part, whereby it rests securely on the cartilaginous portion of the palate. The summit of this bulb has several indentations, corresponding with the projecting surfaces of the remaining nasal bones. The plate and bulb are united, not by screws, but by soldering, in such a manner, as to appear but one piece.

Mr. Rowell's obturator, bears some resemblance to that described by Delabarre, though we are assured, that Mr. R. had never seen, nor heard of Delabarre's proposed operation, indeed, the American obturator was made in 1841, a long time before the description of the French instrument was published in this country, besides, being a much superior artistical production, and not liable to the serious objection, as five years' use of it has proved, of enlarging the palatine opening. It is, at this day, as complete a reparation of the deformity, as when first put in, and vocalization and deglutition are as perfectly and easily performed, as before the commencement of the disease, which caused it.

The subjoined cuts, will render the arrangement of the different parts more intelligible.

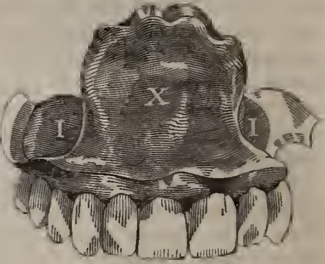

Fig. 1, I I represent the lateral parts of the palatine plate, the semicircular front edge of this plate, to which the teeth are attached, is made *double,* in order to compensate by its thickness, for the deficiency of the alveolar ridge. X is the obturator portion rising from the upper surface of the plate, its summit marked with indentations, corresponding to the projections of the nasal bones and soft parts remaining.

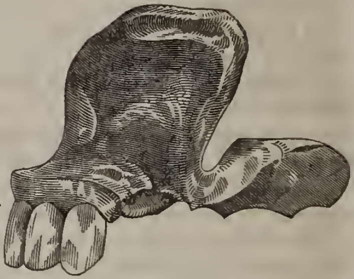

Fig. 2, is a lateral view of the same. The double alveolar edge is here more apparent. The peculiar shape of the obturator portion, by which it is enabled to clasp itself upon the soft palate, after being pushed through the aperture, is also readily distinguished. The whole thing, except the teeth, is made of fine gold, and very light, so that its weight is no incumbrance, or cause of displacement. The union between the horizontal plate, the obturator, and the double alveolar ridge, is so skilfully executed, as to be scarcely observable, even by a practised eye.

Art. IX.—*A Few Observations on some of the most Common Diseases of the Digestive Organs.* By N. S. Davis, M. D. (Read before the New-York State Med. Society, Feb. 3d, 1847.)

Perhaps there is no class of diseases more frequently neglected or badly managed than those which occur most frequently, and at the same time are not attended with any immediate danger to life. Of this class are those chronic and annoying affections usually included under the head of dyspepsia, and their very frequency is the cause of their being so often misunderstood or carelessly treated, for it is a general rule, that whatever is most common is least apt to excite in the mind either careful attention or close thought.

Chronic diseases of the digestive organs may be divided into two great classes. The symptoms presented by both are exceedingly various. They may be described, in general terms, however, as follows :—the first, in its early stage, is characterized by a simple loss of action in the muscular coat of the stomach and intestines, causing the bowels to be costive, and the head often to be dizzy or painful, not unfrequently producing paroxysms of what is popularly termed *sick headache,* simple irritability of the nervous system, a general sense of lassitude or indisposition to active exertion, either mental or physical, and a speedy sense of weariness on attempting such exertion. The patient often says he does not feel well, or able to exercise, but he can scarcely tell why; for in the early stages the appetite often remains good, sometimes morbidly so; the tongue moist and only slightly furred, and the pulse natural. But at a later period indigestion is more prominent, giving rise to more or less distress of some kind in the epigastric region, soon after eating; and not unfrequently, in females, the appetite is entirely lost.

The second class of patients are almost uniformly characterized by a clean, red tongue, a quicker pulse, more acidity in the stomach, more painful digestion, particularly more sense of heat or burning in the stomach, more loss of flesh, and the costiveness often alternating with diarrhœa. And here again the food is often habitually rejected almost as soon as swallowed. The two classes of symptoms here described exist in every grade of severity, and often run into each other, making a case of no little complexity. And not unfrequently the first, after a protracted existence or bad management, terminates in the second.

Let us now inquire what is the real pathology of these diseases? There is no proposition more susceptible of proof than that the whole nervous system (and no part of it more so than that termed organic) is dependent on the due supply of oxygen in the arterial blood for the healthy performance of its functions. Another universally-admitted proposition is, that all muscular contraction is dependent on nervous stimulation, or agency; and not only so, but all the capillary vessels, and consequently the secretions, are more or less under the influence of the same agency. And still another well-established proposition is, that in the same proportion that the *tone* or healthy energy of the nervous system is impaired, its irritability or susceptibility is increased. Keeping these general propositions in view, let us return to the diseases in question. They are well known to occur most frequently in the female sex, and especially among the higher or more fashionable classes; next among men of sedentary habits, hard students, and such as have impaired the vigor of their organic systems by practising some of the vices of the age, and none more frequently than excessive venereal indulgences and onanism. Now why do dyspeptic complaints arise principally among these classes? Simply because the first by the foolish fashion of confining the chest, and the second by the want of exercise, fail to receive the necessary quantity of oxygen into the lungs; consequently the nervous system is not duly supported by well oxygenated, arterial blood, and hence its influence over the whole muscular system is impaired; and hence, too, the sense of lassitude or indisposition to active exertion in the cerebral or voluntary system, and the loss of peristaltic motion and consequent costiveness occasioned by the diminished energy of the organic system. But this is not all: the same state of the nervous system causes a diminution of all the secretions; the gastric juice is diminished in quantity, and the food is, as a consequence, digested slowly and with more difficulty. Many of the excretions are also partially retained, vitiating the blood, and giving rise to the frequent attacks of sick headache, and a great variety of other distressing symptoms. The third and fourth varieties of cases produce the same results, but in another way; the third, by concentrating the vital energy too much and too long on the cerebrum alone, thereby impairing the organic nervous system, and producing all the subsequent morbid phenomena already named; while the fourth, and last, produce the same consequences by a direct and excessive drain on the organic system itself. I might here detail a number of well-marked cases of this class, but the practice of every close observer will furnish him abundance of illustration, and therefore it is unnecessary. It will be observed, that all these causes produce only the first class of cases described above, and hence, the inquiry will arise, from whence comes the second class? Every intelligent physician will quickly recognize in the second simply a more or less severe inflammation of the inner coats of the stomach, and consequently it may arise from any of the ordinary causes of inflammation, but I venture the assertion, that nine cases out of every ten arise from either neglect or maltreatment of the first class. Nothing is more common than to find individuals, when they first begin to suffer some of the earliest symptoms named, resorting to some of the thousand kinds of patent pills with which the country is filled; and dose after dose is taken, each by temporarily unlocking the secretions, affording an evanescent and deceptive relief, just sufficient to keep up the patient's perseverance in their use, until, I speak within bounds when I say, *tons* of pills are annually consumed in our country for this very purpose; not only so, but scores of physicians, and some too of high standing, do the same thing with different means. Let a patient of this kind call on one of these physicians, and he is promptly told that he is *bilious* (a term used to cover more ignorance than any other in the whole medical nomenclature); an emetic is administered, a dose of calomel, or a box of blue pills, and the patient is sent home. The patient takes it, experiences the same temporary relief as in the other cases, praises the doctor's prescription, and in a week or fortnight returns for *another*. Now the difficulty with this treatment is, that the remedies have not the remotest influence over either the remote or proximate causes of the morbid condition of the patient. On the contrary, the temporary stimulus of the remedy on the nervous fibrils, distributed on the inner coats of the stomach and intestines, causes a temporary flow of the secretions, and consequently a short season of relief. But every repetition of this direct stimulation of these nervous fibrils increases their irritability, until, in due course of time, we get the smooth red tongue, the frequent vomiting, and occasional diarrhœa; in a word, all the symptoms of a confirmed chronic inflammation of the villous or nervous coats of the digestive organs, or the worst form of dyspepsia. The patient now soon gets tired of his *regular* doctor, and commences the interminable round of quackery. It is not my present intention to enter into any details of treatment, for if our pathology is correct, the appropriate remedies will readily suggest themselves to every intelligent mind. Obviously, the first thing to be done, is to remove the remote and exciting causes. This is a *sine qua non*, without which no permanent relief can be secured. The patient must have a sufficient quantity of pure air, and well-oxygenated blood, due physical exercise, a plain simple diet, mental relaxation, and a removal of all undue drains on the organic system of nerves, &c.. The direct therapeutic agents employed must be so combined, that while they soothe the irritability and sustain the strength of the whole nervous system they shall gently promote all the secretions, and procure a regular evacuation of the bowels, *once* a day, carefully avoiding all harsh remedies of every description. This is easily done by properly combining gentle tonics and anodynes with just sufficient laxative medicine to procure the regular evacuation of the bowels, and occasionally the addition of a mercurial alterative will be beneficial. I make these suggestions for two purposes, first to contribute my mite to the doings of the Society, and second, to call up more serious reflections on these common diseases.

Binghamton, Feb. 3d, 1847.

Art. XVI.—*Case of Chronic Otitis, terminating in an Abscess of the Cerebellum.* By H. N. Bennett, M. D., of Bethel, Conn.

Sept. 1st, 1846. Mr. A. H—— requested me to visit his child, a boy of about five years of age. I was informed that he had suffered since the first of July previous, from severe pain in the right ear, and that there had been until within a day or two of my visit a purulent discharge from the same ear. At the period of my visit, the otorrhœa had ceased, and the little patient manifested acute suffering by striking his head with his hand, knocking it against the sides of its cradle, and by frequent piercing cries. He was considerably emaciated. His tongue was covered with a thick white coat; pulse irregular, bowels very torpid, and the abdomen presenting the scaphoid appearance commonly observed in acute hydrocephalus. Intelligence perfect. My diagnosis was, chronic Otitis, probably terminating in miningeal inflammation. I prescribed an active cathartic, and ordered a poultice, to be applied over the ear. Sinapisms to the extremities. Considered bloodletting contra-indicated from the emaciated and cachectic appearance of the patient. At my next visit, I found that the cathartic had operated freely upon the bowels. The purulent discharge from the ear had returned, but was slight. General symptoms continuing the same. I ordered the continuance of the poultice over the ear, and a repetition of the cathartic dose the following morning. This treatment pursued for a number of days appeared to produce some amendment. The tongue cleaned, the otorrhœa was more copious, and the child frequently asked to be taken from its cradle. Appetite improved. Intelligence perfect. The pulse, however, was still irregular, and the bowels torpid. The remission in the symptoms continuing, I flattered myself that the child would convalesce, and discontinued my attendance, recommending to the parents to keep the bowels freely open, to maintain the discharge from the ear for a time, and afterwards endeavor to supplant it by placing an issue in the neck beneath the mastoid apophysis. I saw nothing more of my patient until called upon to make a post-mortem examination. The parents informed me that the child had gradually declined since the period of my attendance. I inquired if he had lost the use of his limbs on either side, and if the pupils had become dilated, to which they replied in the negative. They stated that he did not swallow for the last three days of his life, and that he had an occasional purulent discharge from the nose, similar to that which came from the ear. This discharge undoubtedly passed to the nostril from the Eustachian tube. I expected to find caries of the intra-cranial table of the os petrosum. The date of the child's death is

Oct. 15th, just five weeks from my first visit, and according to the information received from the parents, about fifteen weeks from the first manifestation of the otitis.

Autopsy, 36 *hours after death. Head the only part examined.* I shall confine myself principally to the lesion found in the cerebellum, and sum up the cerebral lesions by saying that they were those usually found after meningeal inflammation, with the exception that the subarachnoid cellular tissue of the base seemed to have suffered more severely than ordinary from the inflammatory process. The intra-cranial table of the os petrosum, was not carious in any part, nor was the dura mater unusually adherent to it, except a small portion towards the anterior edge of its superior face. The lesion of the cerebellum, which it was the object of this paper to narrate, was a true abscess, filled with a greenish fetid pus, in quantity at least a fluid ounce. It was situated in the inferior portion of the right lobe, and involved nearly one-third of its texture. The medullary portion of the cerebellum was the principle seat of disorganization, and the inferior and lateral walls of the abscess were formed by the inferior cerebral lobes together with the meninges. It appeared to me that the superior wall was very exactly in the plane of expansion of the auditory nerve as delineated by Foville. That portion of the lobe forming the superior wall of the abscess, was softened to the depth of a line or two beyond the proper limits of the excavation, beyond which it resumed a comparatively healthy appearance. The right half of the pons was softened, and the medulla oblongata had been in consequence partially detached from its junction with the protuberance in removing the brain from the cranium. The left lobe of the cerebellum healthy, as well as the superior and inferior walls.

Reflections.—The annals of pathological anatomy furnish many cases of cerebral abscess, but the one above detailed, I believe to be in some respects unique. I know of no case on record, in which the cerebral abscess seemed, as in the present instance, to be the result of the transmission of suppurative inflammation to the cerebral substance by means of a nerve distributed to an extra-cranial seat of disease, while at the same time, the intra-cranial suppuration takes place precisely in that portion of the brain which receives the fibres of that nerve. The general meningeal inflammation was evidently subsequent to the local inflammation of the pulp of the cerebellum, because serous effusion must have produced death in a much shorter time than that which elapsed between the first manifestations of cerebral lesion and the death of the patient.

The want of paralysis, if true, appears to be remarkable, but I do not place implicit reliance upon the information received from the parents, because ordinary observers might easily overlook a lesion of mobility or other symptoms, which a professional observer would detect. Admitting, however, the absence of paralysis, in this respect the case finds its parallel in that reported by Cruveilhier, in which the anterior lobe of one hemisphere was almost entirely disorganized without any paralysis of the opposite side of the body.

In conclusion, this case affords a beautiful pathological illustration of the anatomical views of Foville, in regard to the expansion of the auditory nerve within the cerebellum,—and in my view gives force to the opinion that the cerebellum is *par excellence* that portion of the brain which presides over audition.

Art. XI.—*Cases in Practical Midwifery.* By Alfred Underhill, M. D., of New-York.

Case 1.—*Puerperal Convulsions previous, during, and after labor.*—I was called, at 5 o'clock, A. M., 1st July last, to see Mrs. S., aged 22 years, who was eight months pregnant for the first time, the physician engaged to attend upon her being absent from the city. She was of full habit, and somewhat inclined to corpulency; complained of headache and dizziness, and some pain about the back and hips. Pulse about 80, full and hard, tongue furred. Abstracted from the arm ℥ xvj. of blood, with great relief to the head, and directed her to take ℥ j. ol. ricini.

At 9 o'clock, four hours after my first visit, was sent for in great haste. Found her laboring under a severe paroxysm of convulsions of an epileptic character, which lasted several minutes after my arrival. The convulsions left her in a comatose state; face flushed, pulse 80, and full, pupils dilated. Medicine had not operated. Made a vaginal examination, and found the os uteri rigid and dilated, only sufficient to pass one finger within it. Administered a stimulating enema, which operated in a few minutes, and brought away very large, dark, and offensive discharges from the bowels. Regular labor-pains now commenced, and continued at intervals of fifteen or twenty minutes, growing more severe, and with almost every pain a paroxysm of convulsions. I now took ℥ xxx. more blood; bladder with pounded ice to the head, sinapisms to the extremities; gave gr. x. Hydrg. sub. mur., and nauseating doses of tart. ant. every hour.

Under this treatment the convulsions became a little less violent, and she manifested somewhat more sensibility between the paroxysms, although not sufficient to answer questions rationally. The os uteri gradually but steadily dilated, and enabled me to determine that it was a second foot presentation. At half-past 12 o'clock I ruptured the membranes, grasped the feet, and delivered a still-born female child of the usual size. The placenta was delivered in fifteen minutes, with little or no assistance. The mother, during delivery and afterwards, quite insensible. Left her in an hour, during which time there was no recurrence of convulsions, and apparently asleep.

I returned in two hours, and found she had suffered three paroxysms in the interval. Called in consultation, Dr. Hoffman, and conceiving there to be present a little hardness of pulse, which beat seventy in a minute, we reopened the vein in the arm and took ℥ viij. more blood, when the hardness disappeared. To be kept quiet; ice to the head to be continued. Saw her at 8 o'clock P. M., had slept for two hours. There had been no more convulsions, and she could now answer questions when spoken to sharply.

From this time she continued to do well, and with the exception of an occasional dose of castor oil, needed no medicine, and regained her strength as rapidly as the majority of women.

Case 2.—*Placenta Presentation*—*Uterine Hemorrhage.*—Sunday, August 9th, 1846, 10 o'clock A. M., was sent for in haste; Mrs. C., a delicate woman, between seven and eight months pregnant with her fifth child. Had been subjected to considerable pain in her back, and very slight show of blood for two or three days previous, but considered it of no consequence, and did not obtain advice. From early that morning had been about the house attending to her usual duties, when suddenly she was attacked with a severe labor-pain, and most alarming hemorrhage, causing her to faint and fall upon the floor.

Found her in bed, with face and lips exsanguined, and nearly pulseless; blood flowing freely from her. An immediate examination discovered the os uteri rigid, but sufficiently open to admit the ends of two fingers, with the placenta extending over it, causing an inability to discover the position of the child. Gave pills composed of acetus plumbi, opium, and ipec.; applied cold wet cloths to pubes, and introduced the tampon.

She had no labor-pains to signify for two hours, when her strength rallied somewhat, and the pains returned, increasing the flow of blood with each accession of pain. At length, an alarming hemorrhage induced syncope, which rendered the os uteri more dilated. I was now enabled to pass my fingers on one side of the placenta, when it was detached from the os uteri, and found the head of the child presenting in the first position.

It being perfectly manifest, that the woman's safety depended upon her immediate delivery, I passed my hand with as little delay as possible into the uterus, turned, brought down the feet, and delivered the child, which was still-born, and from its condition must have been dead some two or three days certainly. The woman recovered without a single untoward symptom.

I would only remark upon the beautiful provision of Nature in this case, where death appeared almost inevitable, in suddenly bringing about that condition in the os uteri, whereby alone, efficient and prompt assistance could be rendered, and a valuable life preserved.

New-York, Dec. 10, 1846.

[As a general rule, replies to articles appearing under the review department of our Journal are inadmissible; but, in respect to the following communication, we make an exception, with the express understanding that it is not hereafter to be quoted in the light of a precedent. It is not often, indeed, that we meet with female philosophers or physiologists; and when we do, every instinct of our nature prompts us to give them a fair field and every favor.—Editor.]

Art. XII.—*Reply of the Authoress, to a Criticism, published Sept.,* 1846, *in this Journal, on a Work entitled* "*A Treatise on the Motive Powers which produce the Circulation of the Blood.* By Emma Willard."

> "Respiration is the function, essential to the constitution of an animal body; it is that, which in a manner animalizes it; and we shall see that animals exercise their peculiar functions more completely, according as they enjoy greater powers of respiration."—Cuvier.

As neither the Criticism to which we are now to offer some reply, nor the work criticized, may be at hand with our present readers, we therefore commence with a short retrospect of both. The work maintains that *the ultimate physical cause, which produces the circulation of the blood, is that living respiration, which operating by animal heat, produces an expansive power at the lungs.*

This theory assumes, as a general principle, that if a fluid is contained in any system of vessels ; as the sanguineous system in animals ; if heat be applied at one portion, and that the proper portion of the system, and the fluid be carried from the heated part, and elsewhere condensed, and then return to be warmed anew, that this alternate expansion and condensation is a motive power, which will produce a perpetual circulation. That this is a correct principle, the work in question shows full proof made by experiments. Since those experiments were made, but before their publication, the same principle has been developed on a large scale, and its operations may now be seen in extensive buildings, heated by the circulation of hot water on the precise principle here assumed.*

The Treatise, while it maintains that respiration furnishes the chief motive power, yet shows that the independent functional action of the heart is necessary to open and close the valves, which lie in the blood's course, and thus to make the power of expansion available to produce a circulation in all healthful positions : and it also maintains that the heart's action furnishes an important auxiliary power, operating to the greatest advantage where the expansive power would, from the effect of position, either partially or entirely fail.†

The Treatise on the Motive Powers further shows, that the pulsatory movement of the blood in the arteries, which is derived from the heart's action, does not prove that the motive power which produces the blood's current is derived from that action also.

The work in question, further shows how the circulation is assisted by exercise ; and makes no difficulty in allowing that it may have other aids. But we acknowledge, that we have always been, and now are, utterly unable to conceive, how any system of cylindrical vessels, which have neither a vermicular motion nor valves, can produce or aid a current in the fluid which they contain ; or how the mechanical rising and falling of the chest in respiration, undoing one way, what is done another, can much advance the general circulation.

The Criticism to which our remarks are intended as a reply, after stating the importance of the subject, and the need of " more accurate and extended views respecting the laws of the circulation," refers to the great number of futile theories and hypotheses which have been brought forward, and which are mostly founded on principles of pure physics, regardless of the phenomena of life.‡

The author then lays down the old theory, and professes, yet not exactly in plain terms, his belief in it. As respects the circulation he holds, that " the contractile powers of the cardiac walls is the main spring." He offers, however, a variety of expedients to prop up, what is, according to his statement, a falling and imperfect theory; falling —since, in the days of Harvey, the heart was regarded as the only organ of circulation; and imperfect—since, at the best it needs many assistants; and because circulation, as he states, is often carried on without any aid from the heart. His language is, "all that we can say is, that the heart is a very important instrument in carrying on the circulation, but not essential to it, since a true circulation may exist without it." The author next introduces some account of our theory; regarding it as wholly untenable.

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* Benjamin Marshall, the great manufacturer, on being asked on what principle warm water was made to circulate through large factories, replied, " By the same principle that the blood is made to circulate through the animal body." This reply, was the instinct of a great practical mind.

† We have, in our system, given to the heart all that is claimed by the great naturalist, Cuvier, who says, " The circulation vortex is sometimes simple, sometimes double, and even triple, (including that of the vena porta) ; the rapidity of its movements is *often aided by the contraction of a certain fleshy apparatus denominated hearts.*"

‡ For want of room we are obliged to omit a part of this article, written to show that the powers of life do not make against our investigations, as we have conducted them ; and also another part in which we have replied to our reviewer's assertion, that the circulation of animals is probably like that of vegetables.

Before joining issue on this point, we must be permitted to express our regret, that in the statement of our theory he omitted some essential points, took no notice of our arguments, and as to the answers which we had made to many objections, among others those which he himself brings forward, he only vouchsafes us the disagreeable epithet of "adroit," where an English reviewer has accorded us such words as "complete and cogent." Indeed, could we be certain that our book would be read without prejudice, by those who peruse the criticism in question, we should not care to make other reply than a reference to that.

It is in vain to say, that cannot be, which is. When two events are so conjoined in nature, that one is the only invariable antecedent of the other, then, according to all logic, we must conclude that the first is the physical cause of the second, even though we cannot understand how it should be so. The germ is the invariable antecedent of terrestrial life, yet, who understands how? of the circulation of the blood, such living as produces heat is the *invariable* antecedent, and nothing else is. The heart's action, as stated by our reviewer himself, is not respiration, therefore, and not the heart's action or any thing else is the physical cause of the blood's circulation.

Again, if any phenomenon varies in a ratio proportionate to some other phenomenon which invariably precedes it, it is logical to conclude that they are related in the way of cause and effect, the last being the effect, and the first, the cause. In Section VIII. of the Treatise on the Motive Powers, "it is shown that the circulation varies in force, in a ratio proportionate to the difference between external coldness and internal heat. The number of degrees of temperature, through which the blood must pass in going from the extremities to the most heated part of the vitals, is the measure of the force. And such a difference is a well-known agency in producing motion. There is the greatest internal heat when there is the greatest amount of respiration,* and that, in man, is where the external air is the coldest. Therefore, since circulation is as difference, and difference is as respiration, circulation is as respiration, and respiration operating by animal heat, is the cause of circulation.

Again digestion is as respiration, and on our principles, it must be so. For great respiration presupposes that a great quantity of oxygen meets in the lungs with a great amount of carbon, and the supply of this must be constantly renewed by an answerable amount of food, and that of a nature to yield much carbon; and there must be a proportionably strong stomach to digest it. This principle is affirmed by Cuvier, who specially instances birds, which, he says, "have a digestion in proportion to their vitality, and to the amount of their breathing."

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* That is where the greatest amount of carbon combines, in a given time, with the greatest amount of oxygen.

Again, animal strength is found in the same category. Strength is as circulation, and also as respiration. And even animal vitality, according to Cuvier, is as respiration. Certainly, take away respiration from an animal, and heat, digestion, circulation, strength, and apparent vitality all cease. Restore respiration before the organism becomes deranged, and all are restored. They all begin with respiration; vary as it varies, and cease when it ceases. This is the law of nature with respect to respiration, and it is not with regard to the heart's action, or any thing else. Respiration, then, although we could not see how it should happen, must be regarded as their cause; much more, when we can clearly see, not only how it may happen, but how it must.

Before proceeding with our argument further, we would give an extract from the introduction of the great work of Cuvier on "The Animal Kingdom," and we would ask the reader whether we have not strictly pursued the method of investigation which he sanctions; and whether the theory advocated by our reviewer is not based on methods which he condemns. Our object has been to arrive at a general law to which an infinite number of particulars may be referred. We have employed the same methods of procedure as in the other sciences; we have taken "the problem of life entire," and arrived at our results by "analyzing it in thought." Our reviewer seeks to discredit our theory by introducing, with the name of Sir Charles Bell and others, what he supposes an incompatible rate of velocity made out from experiments where "the conditions of life" are violated—not "taken entire," and on these uncertainties "precise measurements" are attempted.

"Natural history," says Cuvier, "has for its object to apply specially the laws recognised by the various branches of general physics, to the numerous and varied beings which exist in nature in order to explain the phenomena which they severally present." "Natural history is confined to objects which do not allow of rigorous calculations, or of precise measurement in all their parts." "Natural history should in strictness employ the same modes of procedure as the general sciences." "An essential difference, in effect, between the general sciences and natural history is, that in the former, phenomena are examined, the conditions of which are all regulated by the examiner, in order, by their analysis, to arrive at general laws; while in the latter, they occur under circumstances beyond the control of him who studies them for the purpose of discovering, amid the complication, the effects of general laws already known. It is not permitted for him, as in the case of the experimenter, to subtract successively from each condition, and to reduce the problem to its elements: but he must take it entire, with all its conditions at once, and can analyze it only in thought."

How singular it is that men of such acute minds as Sir Charles Bell and others, could have supposed that from wounded arteries, which take on a peculiar and pathological action, the measure of the blood's healthy flow could be found. Such experiments as those of Hale's we now think, though we once regarded them otherwise, of no more avail to prove the rapid current of the blood, than a similar experiment would be to prove that a violent current existed in an India-rubber bottle filled with water. If with water forced into it almost to bursting, it should have an orifice made and a tube inserted, and there should issue a rapid column of water rising from it in the tube, we should conclude that we had the measure of the elasticity of the india-rubber rather than that of the water's velocity.

Various "rigorous calculations and precise measurements" of the heart's force, have from time to time, been made. Of late they have been based on this valueless argument for velocity, together with an assumption of what, if believed, must now be proved, viz., that the heart's force is the cause of the blood's current whatever may be its velocity. Harvey concluded, and very naturally for a first guess, that it was, and his opinion passing unchallenged, it was assumed as a truth; and computations of force were made; the earlier calculators taking for data the supposed resistance that such an assumed power must find in performing its work, and the later, the no less uncertain data derived from experiments of the heart's velocity.

The assumed principle that the blood's current is produced by the force of the heart, is, as we have said, now challenged. A power undeniably *possible*, has been found, which, it is asserted, sets the current in motion, before it reaches the heart, a little further than that organ from the current found in the aorta and carotids, (as the main-spring of a watch lies further from the hands, than the wheel which causes its ticking) and by this power the heart's action itself is said to be led and exerted. After this, the mere statement of the old theory, no matter how authoritatively or how learnedly made, no longer carries conviction.

The new-found power, we repeat, is unquestionably a possible power. But that the heart's force is from the ascertained laws of physics a possible power to produce such results as the circulation enfolds is denied. Dr. Arnott, who examined the subject long, decided this question in the negative; and he especially declares a suction power from such a force, with such conductors as the veins, impossible. Let any patient thinker fix his attention on the circulation of the head. A much greater proportional quantity of blood goes to the head than to the other parts of the body. John Bell says as four to one, others say, as five to one. On what principle shall the contractile force of a small soft organ project upwards such quantities of a heavy and inert mass against innumerable obstructions from the course of the vessels, some of which directly bar, and others turning back, still more oppose its way; and then the constant power of gravitation is against it. How comes it, then, that the part of the whole body where the greatest projectile force was needed to operate against gravity, should be the part to which should be sent at least four times as much blood as to any other? Certainly the Wise Maker designed it to be there; but it is presumable that his wisdom employed the right and not the wrong agent to carry it upwards to its destined place.

Again, regard the circulation of the lungs. Facts prove that to drive the blood through such a mass of windings and turnings as the lungs present, is beyond the measure of the heart's force. When respiration stops, the lungs fill with blood, and the heart, struggle as it may, can never empty them; and since there is not a valve throughout their whole course, how much would the movement of the thorax in respiration help the matter? Our reviewer, who appears to think there is much aid to the circulation in this mechanical movement, can, if he chooses, try its effects on a dead body. We, who in the very first sentence of our Treatise, limited the power which we advocate, to be that of expansion produced by the heat of respiration, have no interest in such an experiment.

"It is well known," we quote our reviewer's language, "that heat is generated in every part of the system as well as the lungs. Where-ever oxygen and carbon unite, there it is developed. But it is imparted to the *solids* equally with the fluids." Heat is not equally imparted to the solids and the fluids. Who does not know, that although there may be some heat elaborated in the stomach, and some during the various processes by which the solids change, that the great source of heat to the animal system is in the fluid blood, not in solid flesh or bone? How soon, in some climates, would the limbs freeze, if there were not a continual flow of warm blood to come to them from the vitals, to which the cooled fluid returns, to be again warmed, and sent forth! We think this fact is so evident, that no man professional or not, possessing common sense, can any more doubt it, than he can doubt his existence, though he never expected to be called on for the proof. But if we ask for proof that heat comes and goes with the blood, our senses can give it. Regard the cheek when the blood makes its most beautiful external manifestations. Look at that modest maiden as the quick blush dyes her face a bright crimson. The common language in this case is, "the blood rushed to my cheeks," the poet calls it "the eloquent blood," but no one calls it aught else but the blood, or supposes that the solid flesh of the cheek has instantaneously changed. That the blood thus rising, has really *warmed* the cheek, the person feels, and a thermometer will show. But why waste words to disprove a self-evident absurdity? Who believes that the solid parts of his leg warm the blood in the limb, just as much as the blood warms the solids there? Who does not know that if the arteries which lead to any limb were cut, the solids would have no more heat, and that when the circulation is once stopped, the stomach and all the solids quickly lose their warmth?

Animal heat then, is chiefly generated in the blood, and somewhere within the body. But where? It must be at some place to which all the blood from the extremities may come, to be warmed and sent off again; such are the conditions of the circulation; and added to these conditions, it must possess those of a constant combustion. For this purpose, there must be a place for the reception of the blood guarded against the dangerous element of caloric, and then, having within its fluid mass, the constant fuel of carbon, it must meet a never-failing supply of oxygen. This is indispensable to combustion. Is there such a place provided? Just such! It is the lungs.

The lungs are that portion of the animal body which of all the soft parts, longest resist the action of heat. Even the lungs of young animals, as calves and lambs, which have not attained their strength of texture, and whose respiration is perhaps on that very account, small and imperfect, can but with great difficulty, after long boiling in water, be made soft. The heart, the strongest muscle in the body, is made tender by that process much sooner. In older animals, the lungs resist the action of heat in water almost like cloth. And suppose we wished to expose cloth to the action of heat, how would we guard it? By keeping it constantly wet, and we would increase the quantity of water as the heat of the fire increased. Just such a provision has Nature made for the safety of the lungs.* And this is probably the final cause of the vapor which is formed constantly on the side of the membrane where the fluid blood is not, and this vapor ever increases with the quantity of caloric set free in the lungs.

That the combustion for which the Allwise has thus made preparation, does actually take place ; we have the evidence of our senses. Look at the stage-horses, at their entrance into your village of a cold winter's morning. Regard them as they stop and breathe, after their violent exercise. They have icicles around their heads, where the vapor of their breath has congealed, and you see the vapor rise from their nostrils as from steam-engines. How has that great quantity of frozen water been formed? Every particle of it has existed as water in the lungs ; and has received there the caloric to enlarge it to eight hundred times its volume. This caloric, which otherwise would have endangered the lungs; has been thus carried otl' harmlessly through the nostrils. And although so much caloric is used in the lungs, for the formation of this vapor; still the air of the returning breath comes hot from the chest, and the more so as the external air is colder.

But what says chemistry on the question, does the blood receive caloric at the lungs? She says, that when substances having an affinity one for the other are brought together, they will chemically combine ; and when giving her directions for the manipulations of the laboratory, she so often repeats, "Add heat to quicken the process," that the scholars sometimes make it a pleasant byword. Here then, is her vessel—the lungs, prepared with a most curious division. She brings up the oxygen on the one side of the thin, but impervious membrane, and on the other, the blood with the carbon; which, says our reviewer, quoting Dr. Draper, hastens on account of strong affinity for carbon, to enter the lungs. The heat to quicken the process is there, and the vessel is lubricated, and there they combine ; turning the dark-hued blood, to the color of fluid flame; and imparting the genial warmth of life, to the ever-moving current.

But, let us inquire of chemistry, before we take leave of her, is it not possible that the oxygen of the air, instead of chemically combining with the carbon in the lungs, goes by absorption into the blood, and burns carbon somewhere else? Chemistry shows her books where it is written, that substances having an affinity and meeting under the circumstances stated must combine, and that for a liquid to absorb a gas, at a temperature so high as to change water to vapor, is an utter impossibility. We therefore say, as we have said, *the blood receives caloric at the lungs.*

But our reviewer objects, that if any power of expansion is shown at the lungs ; it is too little to produce the required result. Here his hasty perusal of our theory prevented his remarking, that we made essential to our theory, two points which he omitted. One of these is, that though the lungs be the great original fountain of heat, to the system ; yet, from the laws of the radiation of caloric, all the parts adjoining must become equally heated. And that the blood in commencing its return from the extremities, would on this account, soon begin to receive caloric; and that all the expansion thus received by the change of temperature, from the coldest part of the extremities to the lungs, as well as that received in the lungs, will be available as motive power. This may, in extreme cases, be seventy degrees or more.* "The whole body of man," says Cuvier, "is modified for the vertical position." This gradual use of motive power, from the feet working upwards in the veins, is exactly what is needed; and the valves when the position is horizontal, conduct the expanding fluid, by resisting its backward, and inviting its forward course.

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* "In frogs, mewts, &c., respiration is to a certain extent performed over the whole outer skin, which on this account requires to be always moist."—Dr. Blyth.

The other point, which we made essential to our theory, is one of startling import; and implies the probability that the blood, while it is coursing through our arterial system, has much of the water of its composition, changed into vapor. For we find it set down in all the books as an ascertained chemical law; that at the temperature of 72°, water when freed from atmospheric air, springs into vapor. Here then is a great problem to be wrought out. In what parts of the system, and in what degree, is the blood's course in vacuo? There is at least a partial vacuum in the lungs. The arteries often enclosed in solid bone, cannot be much affected by atmospheric pressure, and the interior of the skull not at all. Were the sanguineous system found full of blood after death, the argument would stand against us. but the left ventricle and the arteries are found empty, and physiology has long been pressed with the question, with what is the system filled during life, since so large a portion of it is found empty at death? When we reflect on this law of chemistry, and consider that the temperature of arterial blood, is about thirty degrees above the point at which particles of water in vacuo, become vapor; and that a great proportion of the blood consists of water, we are no longer afraid of a lack of expansive power; but clearly see that Nature in this important particular, has not failed of her usual abundance. The question of how much power, and what velocity will the power give, becomes now mingled with that of atmospheric pressure on the various portions of the circulatory system.

If in our theory, we did not, while we deny the heart's action as the main-spring in the circulation, show an adequate use for its wonderful mechanism, that would make against us. And it is entirely against the old theory, that it shows no use for respiration, and its constant attendant, animal heat. Breathing and warmth are not ultimate ends. Man breathes to live, he does not live to breathe. He is warm to live, he does not live merely to be warm. And our theory shows that it is these prime agents which sustain his being; and it sets forth the manner in which they operate for this end.

Cuvier calls life a "tourbillon," a vortex. In man it is the mind's army of powers and faculties, of motors and sustainers. Some are obedient to his will, and these are not always wisely used; but many are made subservient to his accommodation, by a Father who does nothing otherwise than in perfect wisdom and efficiency. A part of this supposed army He keeps under his own command, either not at all, or but partially entrusting his yet imperfect and erring child to control what his own watchful Providence is every moment employing for his benefit. The powers used in respiration man may not suspend, and but partially control, and we have seen that these powers constitute a considerable portion of the whole army of life. They form the advanced guard and the forlorn hope.

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* The freezing point is 32° above zero. Limbs in some extreme cases actually freeze. But the face, is sometimes exposed to a degree of cold, thirty degrees below the freezing point, and that without injury. How could that be but on the theory we advocate?

Carrying out this figure of an army, suppose we were living in the days of Napoleon. We are observing an encampment where he commands in person. We remark, that a considerable part of the army is engaged in collecting fuel, another part in chopping it up, another in carrying it to the proper place to be burned. Then there are still large numbers who are engaged in blowing an enormous bellows to burn this fuel in a great fire, which, as if the salvation of the army depended on it, is watched day and night, that it should never for a moment go out. I ask you, Why does Napoleon set so large a part of his army to the constant collection of fuel ? You tell me that his object is to have a perpetual supply to keep up the large fire which we see. But I ask again, For what object does he keep up that fire ? You tell me it is to burn up the extra quantity of fuel. But it is not, I say, an extra quantity, it is a part of the ordinary supply, gathered by numbers of the army, and with the most assiduous care on the part of the commander.

He must ill deserve the name of an able and wise general, if he sets one part of his army to such an anxious and busy gathering of fuel, merely that another part may as anxiously burn it up. Depend upon it, Napoleon makes better calculation. He has an important object in all this, which, if we watch, we shall discover. Who of us would not have reasoned thus concerning so able a man ; and shall we think less of the wisdom of the Omniscient ?

Art. XIII.—*Remarks on Malarial Diseases, so called.* By W. R. Gist, M.D., of Jackson, Mississippi.

Mr. Editor. Dear Sir,—In the January No. of your very useful Journal, I find at page 64, an essay on Malaria and *malarial* diseases, which I think is somewhat calculated to mislead young practitioners, if not to convey erroneous ideas to those of more experience, who have only practised in more northern countries.

Dr. L. says that " Malaria has been more widely disseminated, more pervading in its influence, and more efficient in the causation of disease and death, than all other causes together." Now, sir, this is a broad assertion, and our author's imagination must have been under the influence of this malaria, when he made it. Do not all philosophic authors agree that the sun's rays have a very powerful agency in producing disease ? Yet the sun's rays pervade not only the atmosphere of our planet, but also that of many others. Also the varied conditions of the atmosphere, its changes, its humidity, its dryness, its want of electricity, or its being surcharged with it, all these may produce disease ; and yet what cause of disease extends further ? is more efficient ? What is it but humidity and varied temperatures of atmosphere that produces so much phthisis pulmonalis in Holland, and many other northern countries? There is just as much reason for saying that there is a specific malaria in the one case as the other. So of many other causes of disease, as intemperance in eating and drinking, &c., yet this malaria extends beyond them all, "going about seeking whom it may devour." I do not wish to be understood as denying the influence of specific gases in producing specific diseases; that such is the case I most fully believe. But, sir, it is this wholesale way of speaking and writing that I object to; and, beside, it is time for medical writers to state what they mean, when they introduce to our notice such a powerful agent as malaria. Let them call it carburetted hydrogen gas at once, or something else which we can appreciate. This gas may have suspended in it, if you please, particles of putrified animal or vegetable matter, or it may be the common atmosphere suspending these particles; or yet it may be any of the gases, but let us understand what they do mean when they speak of it.

Our author then goes on to cite some woful instances of mortality from MacCulloch, (who, by-the-by, is not very good authority for these diseases,) and winds up by saying, that "in 1610, the colony of Virginia consisted of nearly 500 persons, but in consequence of want of food and (want of) *malaria*, at the end of six months, only sixty of the whole number remained." This was very remarkable; why, sir, in this country, if you were to place 500 persons where they could get neither food nor *malaria*, my impression is that they would not be alive six weeks much less six months. These poor fellows stood it well. But, seriously, these broad assertions, without specifying, have a most injurious effect on practitioners, especially the young, who have not yet the power of discriminating, nor can they have, until they have considerable practice. Here is an instance given, upon mere vague history, where there was a whole colony, without houses, without food, without any of the necessaries of life, and so exposed to a hot sun, in a new country for six months, and yet the whole cause of the mortality is laid to malaria.

I have practised medicine in the South perhaps as long as our author, and have attended more than 3000 cases of fever, and during the whole time, I have been as close an observer of causes and effects as my opportunities would admit; and I can assure you that I give very little credit to the numerous assertions I see in books and journals, about the effects of this supposed cause. The continuation of our long summers, here, relaxes the system; the perspiratory tubes (of which Wilson says there is about 28 miles!) become preternaturally excited; the whole nervous system becomes irritated, which reacts on the vascular and glandular systems; and the whole is disposed to take on disease. In this condition of the system, we only want an exciting cause to produce the effect, as over-exertion, over-eating, or long exposure to the hot sun. Our atmosphere is also subject to sudden changes. The wind which has been from the south suddenly is from the north-east, and sometimes stands from that point for a week or ten days. When this state of things exists in August and September we expect our most sickly times. What other agent do you wish to produce disease? When the wind is from the west or south-west, we are assured there will be health; and why so? because it always brings a balmy soft atmosphere. That there are local causes of disease I most readily admit, and these may be extensive. A marsh, a mill-pond, or even a cellar, may originate carburetted hydrogen gas; and as stated above, this may have suspended in it particles of putrified animal or vegetable matter, as before explained, producing a most poisonous atmosphere. But, sir, we have no such mortality or sickness in the south as our author speaks of. I have thought that he perhaps lives in *Missouri*,* if so, it may prevail there, as I have no experience in that State, yet I would even then, with equal earnestness, controvert his opinions as to the theory of diseases of this nature.

Our author then goes on to describe the symptoms of southern diseases pretty well. That fevers are often masked, and manifest themselves in various ways, there can be no doubt; but his theory being different from mine, we account for it in different ways, or rather he does not account for the phenomenon at all, whilst I think it is quite easily explained on a different view of the subject. Let us suppose the system in that relaxed and irritable condition, which I have described above, and which we know it often assumes. In this condition the weaker organ will be the one on which disease must fall with the greatest force; hence we may have congestion of the stomach, or any other organ or organs, according to the point of greatest *irritation*—*ubi irritatio ibi fluxus*—and different organs and parts of organs, will manifest their diseases in various ways according to the part affected, and the intensity of the disease.

Having different views of the theory of what our author calls *malarial diseases*, my treatment is different. I believe the nervous system is primarily affected, that the derangement of the glandular and vascular systems, together with the functions of the skin, follow as a secondary consequence. Hence I direct my main remedies to the nervous system. But as I do not, on the present occasion, intend to go fully into the treatment of these diseases, I will speak only of a few remedies.

Our author thinks that one or two grains of quinine in combination will affect more than five by itself. But that this is not the case, I am sure all southern experience will most readily affirm. That quinine in combination with opium is our sheet-anchor, in the treatment of this class of diseases, there can be no doubt, and for the very reason that I have named above; the remedy addresses itself directly to the nervous system, and as an anodyne allays the irritation. In ordinary cases of fever, from three to five grains of quinine is sufficient for a dose, and this repeated, at intervals of one or two hours, until five or six portions are taken, will generally break up the paroxysms. It is certainly better in its effects in most cases when combined with some of the opiates. But suppose a bad case of congestive fever. Our patient after having been sick for two or three days with ordinary fever, suddenly becomes restless; tosses from one side of the bed to the other; feet and hands become cold, succeeded by a cold clammy perspiration over the whole body; great difficulty of breathing; anxiety of countenance; great thirst; intense heat about the stomach and bowels; throbbing over the *vena cava* and abdominal aorta; pulse small, quick, thready and compressible; in short, every thing indicating the most imminent danger. What are we now to do? If in this case, we give but one or two grains of quinine in any combination, our patient will, as our author says, "either get well or die," but it would not take a prophet to say which it would be. I would first attempt, by the most powerful remedies in my power, to establish re-action. In the case supposed (and I have seen many such), I would lay my patient naked in a bathing-tub, so arranged that the water could run from the tub, or on the floor, then pour three or four buckets of water over him, (and the colder the water the better) first commence gently, and then let it fall in a sheet or douche from a height of eight or ten feet, at the same time let him have as much cold water as he wishes to drink; then immediately rub him dry with rough towels, using quick motions so as to create friction, lay him in bed between blankets, and apply warm bricks or hot bottles of water around his extremities. I regard the douche of cold water as a most powerful stimulant, and it will often succeed when sinapisms, blisters, &c., fail. It seems that the sinking energies of the system are aroused and called to the surface to repel the new enemy, viz. the water. This remedy, however, should always be used under the immediate direction of the physician. If re-action now take place, as it certainly will, if it is not a hopeless case, we have so much gained, and we maintain the balance of the circulation by friction, sinapisms, blisters, &c., when it is disposed to sink, and the gentle application of cold water when re-action runs too high; using ice to the head, and allowing cold water in abundance to drink. At this period I would make the following prescription: ℞. *Quinine*, grs. 32, *morphine*, gr. ⅓; divide into powders No. 4, and give one every two hours until there is a decided impression made on the system. If the stomach reject this, then give *quinine*, gr. 40, *laudanum*, gutt. 30, as an enema; this to be repeated *pro re nata*. If the rectum rejects it also, I would then get blistered surfaces as soon as possible and use it on the endermic plan, but always for effect, for if now a second paroxysm comes on, the patient must die. After the paroxysms are intercepted, the continuation of the remedies, but in less quantity, for a few days, with a few blue pills or some mild cathartic to disengage the viscera, will complete the cure.

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* Mississippi was, by mistake, printed for Missouri.—Ed. *Jour.*

Now, sir, in this case you might as well throw two grains of quinine into the fire as into the patient, for it will only serve to irritate the stomach; and not to prescribe it because it costs money is dishonest, and there is no excuse for it.

But the point I particularly wish to call attention to, is, that the remedies must be addressed to the nervous system. The principal remedies named above, act directly or indirectly on this system. This application of water is a shock, and similar in its effects to electricity, and if re-actions runs too high, use it gently and not too cold, and you obtain its sedative effects. So also the quinine and opium act on the system.

We need not wait for the fever to go off or even decline, in urgent cases, before we give quinine; in mild cases, I prefer to give it in the decline or the absence of fever, but in urgent cases, I never wait. We may often, by a little promptness of action, cut short a paroxysm, or intercept when it is on the eve of coming on. Thus I have in robust constitutions bled to syncope, thus producing an artificial remission, and before my patient recovers, I give six or eight grs. quinine and one quarter gr. morphine, and by repeating according to circumstances, prevented a return of fever.

When we have stopped the fever, we should only regard our patient in a condition to be cured; we can now, by close attention, restore him to health, but if left in this condition, although he may get up and about, he is continually subject to relapses, dyspepsia, &c. We must use gentle purgatives, and perhaps the mercurials disengage the viscera best; followed by mild tonics, and mild but nutritious diet.

Jackson, Miss., Feb. 1, 1847.

Art. XIV.—*On the Use of the Hydriodate of Potassa.* By Augustus Van Buren, M. D., Assistant Physician to Bellevue Hospital.

John Daly, aged 38, native of Ireland. Admitted in the Penitentiary Hospital, Blackwell's Island, with a primary chancre, nearly healed, and three large and deeply-excavated buboes, with jagged and indurated edges, nearly resembling cartilage.

He had had syphilis four years before, but has never enjoyed good health since, being much affected every spring and fall with rheumatic pains; complains now of aching pain in bones, and severe headache, with partial remissions in the morning; has been salivated in the city before entering the hospital.

He commenced taking sixty grains a day of the iod. potass. in solution with syrup and water; this dose was in a few days increased to one hundred and twenty grains; the sores were dressed with poultices of bread and flax-seed, and the pulv. cantharides sprinkled on some three or four times; in a few days healthy granules were seen peeping up, and the sores began to take on a healthy action.

The dose of 120 grains per diem was kept up for twenty days without any apparent ill effects, or the usual results of large doses of the hydriod. potass.; the skin, instead of breaking out in pimples, gradually assumed a dusky brown colour, somewhat resembling the effects of long-continued doses of the nitras argenti.

The sores were now healing rapidly, pains much diminished, appetite good, and able to rest very well at night.

On the thirty-first day after admission, and the twenty-first of the 120 grains, thinking to expedite his cure, he swallowed during twelve hours, the remainder of a solution containing about 300 grains.

Six hours after he was seized with violent pains in the head and stomach; countenance anxious, tongue coated, pulse small and very quick. These symptoms, notwithstanding all treatment, gradually increased to delirium, which lasted for 48 hours, after which they slowly abated, and in twelve days more he was discharged cured.

The sores were now completely healed, leaving that depressed, shiny, and dusky-brown color, peculiar to syphilitic cicatrices; the pains in bones had disappeared, and he was now able to rest well at night; since then he has been daily employed working out stone in the quarry, and is apparently in possession of good health.

This is one of a number of cases of the same kind, where the dose of the hydriodate was carried to a great extent; but the only one where it was not followed by those peculiar eruptions on the skin, which in this institution are found to be one of the common accompaniments of large and continued doses of the iodide of potassium.

The above case is in corroboration of the experience of Dr. Elliotson, as described by him in the London *Lancet*, for the years 1831 and 32, page 728. And also of Dr. Buchanan, in the London *Medical Gazette*, Vol. XVIII., page 519, Dr. E. states, that on many occasions he exhibited two drachms of the iodide three times a day, not only without any injurious effects, but with decided and marked improvement to his patients. Dr. B. is stated to have given it to the great extent of 1½ oz. a day with similar results.

Art. XV.—*Two Cases of Croup cured by Cauterizing the Larynx with a Solution of Nitrate of Silver.* By William N. Blakeman, M. D.

On the 10th of November, 1846, I was called to see a child of Mr. A., about two years old, very fat, large of his age, and of leuco-phlegmatic temperament. I first saw him at 10 o'clock in the evening, five hours after the commencement of the disease, with a hot, dry skin, quick pulse, great restlessness, laborious breathing, and the hoarse barking or crowing sound peculiar to croup. The family had, previous to my arrival, given freely of Coxe's hive syrp.

I gave tinct. sang., comp. syrp. scillæ, with pulv. ipecac., which caused vomiting, but no relief to the patient. At 3 o'clock on the morning of the 11th I gave six grains prot. chlor. hyd., and after waiting two hours, began with the above mixture, to which I had added five grains of tart. antim.; more free vomiting was produced, and a copious discharge from the bowels, at 8 o'clock, but without any mitigation of a single symptom. I then stopped using the above mixture, and gave persulph. of mercury, in doses of qr. grain, the second dose to be given in half an hour after the first, and then at intervals of an hour. The child drank freely of warm water, and vomited some after each repetition of the medicine, but none of that peculiar, heavy, glairy substance, which is the secretion of this specific inflammation. At 5 P. M., the remedies having done no good, and with symptoms of suffocation becoming alarming, I resolved to try the effect of cauterizing the larynx with a solution of nitrate of silver, a drachm to an ounce of water.

The application was somewhat difficult, and the dyspnœa very great. A quantity of the thick tenacious substance was brought away by the sponge, &c., a large quantity by vomiting, which followed.

After waiting ten minutes, I made a second application, bringing away a larger quantity of membranous matter on the sponge than before, and a much more copious discharge accompanied the vomiting, caused by the application.

The disease now seemed to be arrested, as very great relief was apparent to all the family. The breathing was less laborious, the crowing sound less sharp, and the child more quiet.

I saw the boy at half-past ten o'clock, same evening, five hours and a half after the first application; he had improved in all the symptoms, breathing decidedly better, the barking sound heard only at intervals, and he had asked for drink.

I now made a third application of the same solution, which brought, as before, on the sponge, some thick tenacious matter, differing from the first in being of a yellow color. The boy vomited *several* times after *this* application, each time throwing off a large quantity of the same yellow-colored, thick substance, so tough that it could be raised from the bowl by the fingers. Soon after the vomiting ceased, the child was so much better he fell asleep, in which situation I left him, with directions to be called if required before morning.

12th, 7 o'clock, A. M., I found him sitting on the bed calling for food; he had slept pretty well, asking for drink occasionally, a slight hoarseness left, for which he required no further treatment.

Case 2.—I was called, on the 20th of January, at 12 o'clock at night, to see a boy six years old, of sanguine temperament, and florid complexion, who was taken, about two hours before, with croup. The pulse quick, skin hot and dry, the breathing hurried and difficult, the crowing noise loud, and the child very restless. I determined that the remedy used last in the former case should be first in this. I made two applications of the same solution used in the former case. Some tough phlegm came away on the sponge, and free vomiting followed, which relieved the patient so that he soon fell asleep.

21st, 7 o'clock, A. M. The boy has slept well all night, and says he is quite well, only a little hoarse.

ART. XVI.—*Extracts from the Recorded Proceedings of the New York Medical and Surgical Society.*

REGULAR MEETING, Sept. 19, 1846.

DR. WHITE inquired whether any of the members had seen syphilitic buboes, not preceded by chancres, the Bubon d'Emblèe of French writers! Several of the members had seen such buboes, but among the lower classes we cannot trust the account of the patient himself, as on careful examination of the penis, frequently a chancre will be found, of the existence of which the patient does not seem to be aware.

DR. POST stated that he had recently operated at the Hospital, for the cure of a fissure of the anus, by the subcutaneous division of the sphincter ani. The first time, he believed, that the operation had been performed in this country. Nitrate of silver had been previously applied to the ulcer without benefit. A small incision was first made in the skin about one-fourth of an inch from the anus. The finger then being introduced into the rectum as a guide a director was introduced through the external incision, and forced through the cellular tissue alongside the rectum, with its groove directed from the mucous membrane. A very narrow bistoury (tenotome) was then passed along the director, and the sphincter divided. Some tension being still left, the opposite side of the sphincter was divided in the same manner. So far the operation promises to be perfectly successful, the fissure appearing disposed to heal, and the patient's bowels being moved without pain. There has been, at no time since the operation, complete incontinence of fæces, though the patient as he expressed it at first, had to be very quick in his movements. If the operation prove successful, it will be a very great improvement upon the open section of the sphincter as independently of the great difference in amount of the pain and suffering caused by the two operations, the old method frequently left the pátient unable to retain his fæces for a twelvemonth.

Dr. Buel stated, that he had lately cauterized the female urethra. The case was one of uterine engorgement, attended with intense irritation of the bladder, and very frequent and painful micturition. He softened the end of a wax bougie carefully in a candle, and then rolled it in finely-pulverized nitrate of silver. This was introduced into the bladder through a speculum, and then the speculum being previously removed, was rapidly withdrawn. Excessive irritation was caused, which lasted for two or three days. The irritation then diminished, and the patient, though still suffering from frequent calls to pass urine, has since expressed herself as more comfortable than she had been for years.

Dr. Green stated that he has been in the habit of arresting gonorrhœa, by introducing a small bit of sponge, fastened to the end of a bougie, and saturated with a strong solution of nitrate of silver, (40 grs. to oz.) for a couple of inches into the urethra. Dr. Stewart stated that he would at the next meeting exhibit to the Society a little instrument, by which be was accustomed to effect the same object.

Dr. Buck stated a case of fracture of the lower jaw, which he thought was unique. A young man, a fortnight before his entrance into the Hospital, while at sea, was struck by a block on the left side of the lower jaw. The bone was found broken between the two incisor teeth of the left side; the part of the bone on the left of the fracture was driven in, and interlocked behind the end of the right portion, so as to be separated by a finger's breadth. Finding it impossible otherwise to reduce the fracture, Dr. B. dissected off the under lip, so as to expose the fracture. He found that the right anterior portion of the fractured bone terminated in an angular projection as far as on a line below the left angle of the mouth. The lip was then divided to the chin, and the soft parts holding the fragments together incised. A chisel was then insinuated behind the projecting angle of the bone, while it was being excised by the metacarpal saw. When the bone was restored to its natural position, it was found so apt to become displaced, that holes were drilled at the lower angle of the fracture, and adjustment maintained by wiring them together, the wire passing out through the lower angle of the wound. Sutures and adhesive straps, with a bandage, were employed to maintain the adjustment of the parts. So far the patient has done well, being supported by liquid nourishment introduced through a tube, passed through the space left by one of the incisors, which, on account of its looseness was removed.*

Dr. Foster mentioned a case in which epilepsy dependent, as he thought, upon congestion of the uterus, had been removed by iod. of pot. The disease had been first relieved by local depletion of the uterus. On its recurrence, he had tried iod. of pot. with relief. After 3 months interval the disease recurred, the patient having 2 or 3 fits in a night. It again yielded after 2 days, to the use of iod. of pot.

Dr. Beadle, in July last, attended a case of puerperal convulsions. The patient, 30 years of age, was pregnant for the first time. During gestation, the patient's health had been good, though her appetite for food was voracious, and she suffered occasionally from gastric derangement consequent upon the indulgence of it. When first called to her, Dr. B. found her laboring apparently under colic. She had eaten heartily, and suffered consequently under headache and pain in the abdomen. A dose of rhubarb and magnesia was followed by vomiting, and the patient expressed herself relieved. A second dose of rhubarb and magnesia was ordered, and the patient was left. Soon after, the patient was seized with convulsions. On examination, Dr. B. found that labor had commenced. The patient was bled from 12 to 14 oz., and had a second convulsion, while the blood was flowing. After a third convulsion, Dr. Delafield having been called to assist Dr. B., the patient was again bled to the extent of 12 or 14 oz. without relief, convulsions occurring at intervals of about an hour, during which the patient remained comatose. The labor proceeded till the head was brought down into the pelvis, when it made no farther advance. The forceps being applied, the patient was delivered during a convulsion, which lasted for an hour. After delivery she had three convulsions; though they recurred at longer intervals, ice was applied to the head; she was blistered with Granville's lotion on the neck and legs. During the last convulsion, blood was taken by means of cups, but the pulse sinking, dry cups were substituted. After she had recovered her senses, her memory failed, and she did not recover it for several weeks. The child did not live.

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* This patient was discharged from the hospital, seven weeks after, cured.—Ed. *ad int.*

Dr. Garrish some time since had been called to a women laboring under bilious fever. He found her presenting the appearance of one seven months gone in pregnancy. On being questioned, she informed him that she had miscarried eight years ago, when about three months advanced. That six months afterwards she supposed herself again pregnant. The menstrual discharges ceased, the abdomen enlarged, and the breasts became tumid. The abdomen continued to enlarge till at the end of nine months. She had pains resembling labor pains. These passed off, and the swelling, though still present, gave her no arther trouble. The patient recovered from the fever, and enjoyed good health, but at the end of two months from the recovery from the fever, she was attacked with diarrhœa, when she passed under the care of a homœopath. This attack proved fatal, the inferior extremities becoming anasarcous two weeks previous to death. Several physicians, who had seen her during life, had pronounced the disease to be ovarian. On post-mortem examination an immense mass of disease was found in the pelvis. The intestine, uterus, and bladder, were all glued together. There was a great deposition of adipose matter about the uterus, which was much enlarged. In the fundus of the organ were two large sacs, divided into cells, and lined by a dense fibrous-looking membrane. These sacs opened into the body of the uterus. The posterior wall of the uterus, near the os tincæ, was perforated, and a communication thus formed with the rectum, and through this opening the contents of the sac had been discharged. Dr. Swett inquired whether the patient was likely ever to have had abortion produced by means of instruments. Dr. G. had asked the question; but though the patient acknowledged that abortion had been procured, she would admit nothing as to the means employed.

Dr. Bulkley, reported a case which had been lately related to him by a patient, in whose statements he had every confidence, showing a remarkable susceptibility to the contagion of smallpox. The patient, a lady, was exceedingly liable to disease from slight causes, and had been salivated by three grains of blue pill. When she was fifteen years of age, at school, a girl who resided in the same village, but four or five blocks distant, died of smallpox. From the time the girl was taken ill, Dr. B.'s informant had never been out of the house in which she resided, or the yard attached to it. On the death of the girl, her clothes were burnt, and whilst they were burning, the young lady stood at a window, whence she could see the smoke, but could not see the flame. It was winter, and she was certain that, though the window might have been open for a moment, it could not have been for any length of time. Exactly a fortnight afterwards, she was taken with varioloid. Another person in the house took the disease from Dr. B.'s informant, when the school was broken up.

Dr. Green had, within a fortnight, been called into the country to see a lady. He had first seen the patient, last August, when she had consulted him, on account of uterine hemorrhage, with which she had been troubled occasionally for five years. On examination, he had discovered a polypus about the size of an egg, protruding from the os. This was drawn down and removed by ligature. At the time, he noticed some three or four fungus vegetations, about the os, of the size of ordinary grapes, which bled profusely on being touched. These were touched with nitrate of silver. The lady returned to the country with improved health, but at the end of six weeks, the hemorrhage returned more frequently and copiously than ever. About ten days ago, he was sent for to the country to see her. He found the vegetations greatly increased in size, constituting a mass as large as a bell-pear, exceedingly vascular, and bleeding profusely on the slightest touch. Having concluded to remove them, he twisted them off by means of a flat forceps, one at a time, cauterizing them afterwards with the nitrate of silver. The hemorrhage was not very severe, and ceased at the end of half an hour. The neck of the uterus was thickened and somewhat indurated. He has not since heard from the patient.

Dr. Vandervoort had attended lately, two cases of typhus fever occurring in the same family. The first patient, a boy after ailing a week, took to his bed with the ordinary symptoms of typhus. Three or four days afterwards, he showed evidences of extensive ulceration of the intestines and bowels. There was pain on pressure, and from four to six motions per day, all containing the sediment characteristic of ulceration of the ileum and colon. They consisted of a dirty dish-water looking fluid, with a deposit at the bottom of the vessel, resembling moist Indian meal. The patient gradually grew worse, the discharges continued, and stupor and coma supervened. On the sixteenth day he appeared to be sinking. Stimulants were now administered, and other medicines intermitted, and he rapidly recovered. When the boy was convalescent, the sister, who had slept with him for two nights during his illness was taken down with the fever. She was attacked with pneumonia, and sank rapidly, the pulse running up to 140 and 160 in the minute. Stimulants being administered, the pulse became less frequent, but the skin hotter. Stimulants were then suspended, and Dover's powder ordered, while the patient was permitted to drink freely of cold water. Yesterday, apparently under the influence of the pulv.

sanguinar., the pulse had fallen 25 beats. A second sister, who had sat up one night with the patient, was attacked by a mild form of remitting fever. The family was healthy, in easy circumstances, and proper attention was paid to ventilation.

Dr. M'Cready stated that on a former occasion, he had mentioned to the society, a striking instance of the contagiousness of typhus fever. A married woman, just arrived from England, went to live with her father's family, which had been some years in this country. She was ill when she landed, and the disease proved typhus of an aggravated character. Many others of the steerage passengers were attacked soon after they had landed. As the woman became convalescent, her father was taken down with the disease. On the convalescence of the of the father, the family removed from Madison to Elizabeth-st, here a sister was attacked, and a few days afterwards a second sister ; as they were recovering, the mother fell ill ; after her, three children, boys from four to twelve years of age ; and finally a brother of twenty-one. In all, the disease spread to eight persons, constituting the whole of the father's family, and it lasted from Christmas to May. The rooms in which they resided, were from the first tolerably well ventilated, and after the removal of the family, very great attention was paid to that point. D. M'C. could not learn that the fever attacked any one out of the house, though of course, a number were somewhat exposed.

Dr. Foster had lately had a case of retained placenta, from a cause not generally recognized, adhesion of the membranes to the uterus. After the delivery of the child the patient had one or two pains, but the placenta did not come away. In the meantime, the patient flooding somewhat, Dr. F. proceeded to remove the placenta. He first introduced his hand into the vagina, in hopes of inducing contraction of the uterus, but this not succeeding, the hand was carried into the uterine cavity. The placenta was found to be free, but the membranes were strongly adherent to the interior part of the uterus. Dr. F. did not succeed in removing the membranes entire, but the remaining portion of them was expelled the next day under the influence of ergot. The patient, previous to her confinement, had complained greatly of soreness of the abdomen, and could hardly bear to be touched for three or four weeks before that event. Dr. Foster regarded this as indicative of circumscribed inflammation, and attributed the adhesion to it.

Dr. Garrish related a case favoring the opinion that the contagion of scarlet fever can be conveyed from one city to another. A lady had had scarlet fever two weeks before leaving New Orleans. On arriving in New-York she was visited by a lady, accompanied by her daughter, who remained in the room while she unpacked her baggage. Three days afterwards the child was taken down with scarlet fever, and died on the fifth day. Six days after the death of her child a second person was attacked, and died.

Saturday, November 21st.

Dr. Griscom stated that he had lately noticed temporary insanity occur during convalescence from typhus fever. The case occurred in the City Hospital. The patient, a woman about thirty years of age, had been much affected by the death of a patient in a neighboring bed. She became worse, and it was necessary to resort to stimulants. Under the use of carbonate of ammonia and brandy she rallied, and for a time steadily improved. Suddenly she became insane, wandering about the room, laughing and talking incoherently. The brandy seemed to increase the mental disorder, and was stopped. After a fortnight she recovered.

Dr. Swett stated, that he recollected a case of a student at college, who, while convalescent from typhus fever, anxious about an approaching exhibition, applied himself too early to his studies. He became insane, and continued so some months. Several other cases were mentioned.

Dr. Stewart, within the last three or four months, had frequently been called to visit a lady who suffered from pain in the right leg, with swelling in the glands of the groin. Finally he thought he felt something like a pin's head near the external malleolus. He cut down upon it, but could discover nothing. The lady walking about, the wound suppurated. Two days ago, Dr. S. noticed a black spot in the wound, and with a forceps he extracted from it a small calcareous concretion, with a groove on its side, which he exhibited.

Dr. Bulkley had been lately asked by a friend to see a case which was supposed to be one of acute pemphigus. Now acute pemphigus is an exceedingly rare affection, and the only three or four examples which Dr. B. had seen of it had been connected with organic disease. On visiting the patient, a child, he discovered the case to be one of varicella, with pemphigoid degeneration of many of the vesicles. The bullæ had made their appearance on various parts of the body, varying in size from that of a sixpence to that of a dollar. In several places they were confluent, forming excoriated patches as large as both hands. These patches were situated on the back, the thigh, the abdomen, and the calf of the leg. The bullæ were none of them very much elevated, the cuticle, being delicate, soon giving way. The varicella progressed naturally; another child, in the same house, also had the disease. Delpech gives an account of a similar affection, as occurring in an epidemic of varicella in Paris, in 1844. Occasionally pemphigoid bullæ make their appearance in patients convalescent from typhus fever.

Dr. Dubois stated, that he had lately assisted Dr. J. Kearny Rodgers in operating in a case of hemorrhoids. In this case a slip-noose had been applied, and after the strangulation had been continued five or six hours the ligature had been removed. The hemorrhoids afterwards separated at the usual time, and the patient suffered much less pain than usual. Dr. Rodgers had been led to this practice at the suggestion of Dr. Scudder, of India, who had been operated on five or six years previously, and in which the ligature had accidentally slipped off after it had remained on a few hours, the operation was equally effectual, while the Dr., who had previously undergone the same operation, stated that the suffering had been much less considerable. Dr. D. likewise stated, that he had been called in haste to visit an apothecary who had swallowed, by mistake, some solution of strychnia. He found the patient laboring under a violent spasmodic seizure, which passed off immediately. It was discovered that the quantity swallowed was too trifling to produce any deleterious effects.

Dr. Post mentioned, that one of his students had been trying experiments on cats as to the alleged efficacy of purified animal charcoal as antidotes to strychnia and prussic acid. He found the charcoal completely successful, animals to whom it was given along with the poison escaping, while those to whom the poison alone was administered in the same dose died from its effects.

Dr. Buel mentioned a case, interesting only as illustrating the mischief that may result from homœopathy. He was called, about 6 in the evening, to a child three years old, who had been seized with convulsions. Previous to his reaching the patient, it had been seen by a homœopathic practitioner residing in the neighbourhood, who had, in the usual manner, put something in a tumbler of water, from which he was giving the little one occasional doses. The child was still stupid, twitching occasionally. The parents affirmed that the child had eaten nothing which could have disagreed with it. Dr. B., however, administered an ipec. emetic, and the child threw up some undigested chicken, which it had taken for its dinner, together with a quantity of cheese. Immediate relief followed, and there was no further recurrence of the convulsions.

Dr. Blakeman had lately been called, about 11 P. M., to a stout boy, two years of age, who had been seized with croup.*

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* For the full history of this, and one other case, see p. 209 of this Vol.

PART SECOND.

Critical Analysis.

Art. XVII.—*Introductory Lecture on the Reciprocal Obligations of the Medical Profession and Society.* By John P. Harrison, M. D., Prof. of Materia Medica in the Medical College of Ohio. Delivered, Nov. 2, 1846, pp. 28.

An Introductory Address Delivered before the Medical Class of the University of Pennsylvania. By Samuel Jackson, M. D. Nov. 3d, 1846. 8vo. pp. 15.

Introductory Lecture read at the Commencement of the Course, on the Institutes and Practice of Medicine. By S. Henry Dickson, M. D., Prof. Nov. 9, 1846. Charleston, 8vo. pp. 35.

Dr. Harrison begins his lecture with some very appropriate remarks on the *Obligations of the Medical Profession to Society*, which display a correct appreciation of the subject, and a desire to be useful to those about commencing the study of a most responsible profession. We have no where met with juster sentiments, or more enlightened views, in relation to the duties of medical men. The second part of the address is taken up with a consideration of the *Obligations of the Public to the Medical Profession*, which merits the same encomium we have passed upon the former. We only wish the public could read it, and we might not altogether despair of a salutary reform, with respect to the treatment of the profession at the hands of said public, from the highest to its lowest grades.

The author truly says, that the public are under obligation to the medical profession, to discourage quackery in every shape, and that there is a sad dereliction of sound thinking, as well as obliquity of feeling on this point in the community. Again he says, "our judges, lawyers, divines, editors, fashionable ladies, and would-be-wise ones of the land, all join the chorus of laudation, and ascribe with ceaseless iteration, great power and much glory to nostrums and nostrum makers; to quacks, and to those needy adventurers in physic, who ever act as the most efficient allies of death," p. 17.—All this is true; but where rests the cause? Ah, there's the rub. Where is the fault? Not altogether; ay, not chiefly with the public, but in our judgment, with the unworthy members of the profession. They decry, slander, vilify and abuse one another; some turn homœopaths, and run down the regular practice of the profession, calling all allopathic physicians murderers; if called into a court of justice, one is pitted against another, like two roosters in a cock-pit; spectators stand by, listen, and go away to eschew all doctors in all future time; trusting rather to Brandreth, Moffat & Morton, than the most skilful and scientific members of the faculty. Reform is verily needed; but the reform that we need, must begin in our own house.

The lecture is extremely well written, and displays a disciplined mind; enlarged and liberal views; rich scholarship, and a benevolent heart.

Every medical lecture, or journal, which comes to hand, bears testimony to the fact, that the profession is thoroughly roused throughout our country, to the importance of the general adoption of measures calculated to elevate its respectability, and give it a firmer hold than it seems to have at present upon the confidence and respect of the community. It is in vain for us to hug the flattering unction to our souls, that we are the most enlightened, the best educated, the most successful practitioners on the face of the earth, while the great fact stares us in the face, that quackery of every description abounds among us as it abounds no where else, and that many of the most enlightened and best educated men in community prefer to trust their own lives and the lives of their families to the hands of arrant knaves, empirics, and nostrum-venders, than to the regularly-educated practitioners of the healing art.

Let no one imagine that this subject of medical reform is a new project, just ushered into the light of day, and launched upon the profession by "any single individual," or even the Medical Society of the State of New York. No physician, or association of our time, can claim the credit of originating the design of elevating the standard of medical education, and improving the courses of instruction in our medical colleges. It is a theme which has been constantly agitated, from the days of Shippen and of Rush down to the present moment; and it will continue to be agitated, until the standard comes up to the claims of the science, and the profession be justly entitled to the character which it assumes, of a *learned and liberal* profession. The present movement is but the developement of opinions long cherished and universally avowed; opinions so deeply founded in truth, that whatever be the opposition they may encounter, they are certain to prevail, and be carried into practical operation. Our country has been increasing in wealth in a most astonishing manner for the last half century, and strange as it may appear, the standard of requirement for the degree of Doctor of Medicine, has been gradually lowered, till at the present moment, there is not a country on the face of the civilized globe, where it is held so cheap as in the United States of America. We say this in sorrow, and with no other object, than to incite to efforts to rescue it from that low condition into which it has fallen.

Dr. Rush, as is well known, always urged the importance to the physician, of learning to read and speak the French, German, and Italian languages; of knowing enough of the dead languages, "to be able to translate Latin, and to understand all the technical terms of his profession, which are derived from the Greek," of acquiring a knowledge of natural philosophy, mathematics, history, government, poetry, drawing and grammar, with every other branch of polite learning. In his lectures he always advocated the necessity of the most extensive acquirements to the physician, and enumerated among the causes which have retarded the progress of medicine, the neglect to cultivate botany, zoology, comparative anatomy, and a knowledge of the functions of the mind, the neglect of a close observation of disease, and of morbid anatomy, and especially of clinical medicine.

If these were considered necessary and attainable acquisitions in the days of Rush, and of Bard, who will say that they are impracticable or undesirable at the present time. When is the plea of necessity and a thin population to cease, and especially to be urged by teachers of medicine ; those to whom the profession look as leaders in the work of reform ; whose duty it is to raise the standard of education to its highest possible point ; must we wait till California and Oregon, to say nothing of the newly-acquired territories of Mexico, become settled with a wealthy, refined and educated population? Does it become learned and intelligent members of the profession, to resist the desire of improvement and salutary change so universally prevalent? To use the language of our friend Dr. Bell, (*Med. Examiner*, Dec., 1846,) " to hear the seconservatives, one might be led to believe that there is such a strong instinctive love of study, such an insatiable thirst for varied attainments, such a straining after the loftiest standards of professional excellence among the youth of our country, that it is necessary to temper their vain wrought zeal, and to cool their fevered brains by sedative treatment, in the shape of dehortations from the quest of classical lore, or modern science, and of lullabies to quietness, and repose in the monotonous accents of dull flattery and didactic common places."

Are no reformers needed? What is the uniform language on this subject in our profession from Maine to Mexico? Is there a man to be found in favor of continuing the existing state of things, and opposed to any associated efforts to improve medical education? If so, we have not yet met with such a man, nor do we believe that such a one exists. As long ago as 1835, the present eloquent professor of midwifery in the University of this city, in a published lecture delivered in Clinton Hall, used the following emphatic language. " I do not believe there is a city in the civilized world, possessing one-tenth the population of New York, in which the profession of medicine is in such a degraded state as it is with us. *The very title of* "*Doctor,*" *seems to bear disgrace with it.* No man, if he will judge from facts, will deny this, after contrasting the state of medicine in this country with that in France, and attributing its low condition here to the want of the *concours* (which is not yet introduced,) in the selection of teachers ; the professor adds, "this being the condition of things with us, it needs no argument to show why *medical literature has declined, and the practice of the profession reduced to a trade.*" (P. 27.)

Since then we have learned our lesson in the school of the prophets, we hope to be excused if we rehearse it in the streets and avenues, and proclaim it on our pages. We sincerely hope that we shall not be thought unreasonable, if we look for support to those who have heretofore stood in the foremost ranks of medical reform ; and indeed we should be very well contented, if, as formerly, they would resume the reins. We have no ambition to lead, or to be called reformers ; nor do we wish to be understood from any thing we have said, as admitting, that the profession in this country as a body, are inferior in general or special qualifications, literary or scientific, to that in Great Britain or France. Such, taking the profession in those countries, as a whole, (the Surgeons and Apothecaries in the former, and the *Officers de Sante* in the latter,) is far from being our opinion ; but then we hold that the present state of things among us, admits of and calls for improvement, and that we should poorly discharge our duties, if we did not constantly strive for further advancement. With these remarks, explanatory and definatory of our own position, we beg to call the attention of our readers to the able discourses, whose titles head the present article. They constitute but a few of the numerous addresses which we have received relating to the same subject of medical reform, and if we do not notice them all in our present number, it is not because they are undeserving or less important than those above-mentioned, but because they are precluded by our limits.

The discourse of Prof. Jackson is one of his most brilliant and eloquent efforts, and will live long after the speaker has passed from his present sphere of usefulness and honor. He assumes, and justly too, that there is a wide spread dissatisfaction over the whole civilized world with the present organization, condition, and position in society, of the medical profession. In proof of this, he refers to the medical congress assembled in Paris during the last year, to take into consideration the state of the profession, and to devise means for protecting its interests, elevating its character, and increasing its usefulness ; also, to the well-known facts, that the same questions have been constantly agitated for several years past in Great Britain, and that repeated attempts have been made on the part of the government, to reorganize the medical profession, and place it on a better, more uniform and stable footing, consistent with the higher advancement of the science.

"In this country the discontent of the profession has not been less. Its condition does not correspond with its desires, nor does it fulfil the expectations of the community. In its general qualifications it is below the level of a learned and liberal profession, exercising a most difficult art, requiring the combination of knowledge, judgment, and skill. The public, too, cannot often perceive the difference that should separate the graduated physician and the ignorant empiric. The ground of preference between them is not strikingly apparent.

"From the growing sense of these defects, in this country, a proposition was started for the holding of a medical convention. It assembled in New-York the last spring. The representation of the medical public, in this body, was too incomplete to authorize the adoption of any general measures, and after the appointment of some committees to prepare and arrange matters for consideration, it adjourned to meet in this city in May next.

"It will not be thought, I am sure, inapposite to open this subject, and to bring before you the difficulties and grievances of which the profession complain. You have an interest in it. In a short time you will be members of the profession, and will encounter these obstacles, and be plunged into these annoyances, of the existence of which many of you may not have heard, or seriously thought of, before commencing your present career.

"Allusion will be made only to the more prominent objections ; those of minor import will be passed by.

"The first is, the crowded state of the profession. There are more practitioners than are required for the wants of the community. The business growing out of medical services will not afford, from the excess of physicians, a fair remuneration for the time, labor, and expense necessary for a complete medical education, and to many will not yield even a subsistence. There is truth in this statement. A ratio of disease to population always exists. The ordinary maladies which prevail, as inflammations, the functional disorders and chronic affections, brought on by the wear and tear, or the decline of the organs, and most sporadic diseases, are so fixed as not to vary one or two per cent. from year to year. The zymotic diseases, as epidemic, endemic, and contagious diseases, prevailing for a period and then ceasing, cause the fluctuations in the ratio of disease to population, and in the rate of mortality.

"If it were not for this source of irregularity, the calculation of the number of physicians required to population could be made with perfect exactness. It would not probably exceed more than one to 2500 or 3000 of population. But as zymotic diseases recur every few years, a larger proportion of medical attendants are necessary. Allowing for this variation, one physician to 1500 of population, is quite as many as might be permitted in a well-arranged community.

"The overstock of the profession is productive of many ills. It causes, amongst the unsuccessful, misery to the worthy and conscientious, who preserve their principles, and pine in want and obscurity. It tempts the feeble in moral character to resort to ad captandum tricks; to lapse into irregularity of conduct; to sink to the abasement of quackery; and even to the perpetration of criminal practices, under the pressure of hard necessity. It is to the interest, both of the profession and the community, that too great an excess of physicians should be guarded against.

"In the second place it is alleged, that the Medical Institutions of this country have not kept pace with the expansion of medical knowledge, or risen with the elevation of the science: that the courses of lectures in the schools are too limited, and the duration of study too short; that the general education of physicians is unworthy the character of a liberal profession, a result attributed to the schools neglecting to require of students a collegiate, or other enlarged course of education, preliminary to matriculation: and that the medical diploma, conferred from too low a standard of examination, is fast ceasing to be the evidence of professional qualifications; that it is degraded to a mere certificate of attendance on one or two courses of lectures.

"And lastly, it is a general complaint, that quacks and empirics, medicasters and quack-salvers, swarm like Egyptian locusts over the face of the land, imposing by all manner of arts, on the ignorant, the weak-minded, and the credulous: that quackery and humbug, adapted to the popular capacity and intelligence, are more efficient to success in life, than are ability, knowledge, and high cultivation; that the public press, the mind-governing power of the masses, venal and prostitute, is the mercenary of charlatan impostors, aiding them to prey on society, to corrupt morals and to disseminate falsehood.

"Such are the leading abuses and grievances of which the profession complain. They are for the most part true; they cannot be gainsaid."

Professor Jackson has always been a consistent advocate for a high standard of medical education, and as long ago as 1833, in his introductory lecture, he thus remarked:

"It will be an evidence to you that I am actuated by no selfish or sinister motives, in this *denunciation* of the defective character of our system of medical instruction, but am inflamed hy a thorough conviction of its inutility for the attainment of the great end of a complete education." Again, he observed:—"The improvement and reform which the medicine of this country impatiently awaits, do not consist in the formation of new schools, formed on the model of old institutions, treading in the same worn-out paths, and perpetuating ancient errors and systems. It requires an entire and new reorganization of medical instruction."

Dr. Jackson advocates in the same lecture, the abatement of certain old courses to their proper level; the introduction of new subjects and departments, and the prolongation of the period of instruction, and thus raise the medical instruction of the country to a level with the philosophical character of the science.

With respect to the remedies for the evils which exist in our profession, Professor Jackson remarks as follows :—

"Are the abuses, corruptions, and grievances, so loudly complained of and admitted to exist, to continue without an effort to abate them? Certainly not. But they are not to be put down by legislative interposition. They are too deeply rooted to be eradicated by such means. They have their origin in the imperfect principles and anomalies, I have pointed out in the beginning of this discourse, of our false civilization; in the general ignorance, especially in respect to medical science, that pervades the public, and in the false ideas that rule society, and on which it awards its titles to merit, distinction, and popular favor. The abuses and corruptions of medicine, are no others than those that extend through all ranks and classes of society. The medical profession as part of society, could not be exempt from them. While the world continues to form its judgment of individual merit, and its estimate of success on the external accidents of fortune or power, and not on the excellencies of the head and heart, and upright conduct, society will be agitated by never-ending strife for their possession. The shortest road and the readiest means to seize on them, whether right or not, will be pursued.

"The establishment of the medical profession on a better, and its just footing, in its relation with the community, cannot be accomplished in this country, by positive regulations where there is no power to sanction or enforce them. It must come from the diffusion of knowledge; from the elevation of the moral tone of society; from a more exalted estimate of social attributes; from the spreading abroad of just ideas on the nature and objects of medicine as a science, distinct from the vulgar medicine as a trade and an art.

"The medical profession must take the advance in this movement. Let it commence by reforming its own ranks; let it amend its doctrines, and refine its ethics. The medical notions of the public are derived from the medical profession, and are often antiquated opinions, that once were taught by learned professors in the schools. Can we be surprised or offended, that empirics should find favor with the public, when medicine formerly was and continues to be at this time, to a great extent, empirical in practice; and that 80 of 100 practitioners are but empirics. Physicians, by their own conduct, foster the medical errors of the community. They glorify themselves and not their science. They boast of their cures and remedies. Empirics boast also of their cures, and appeal to them, as the evidence of the power of their remedies. Before the public the ordinary practitioner and the empiric stand nearly in the same light. They are both healers; the professors of remedies and cures. The physician, it is true, is more learned and has a more extensive assortment of cures than the quack. He may have but one, but that is a catholicon, or a panacea, and embodies all the virtues of the whole materia medica; or he may have wonder-working globules that produce miraculous effects. Of what import is it, that he who possesses a cure is an ignoramus. If he hold the great remedy, and certificates without number attest it, he can administer it as well as the most learned."

We are told by Dr. J., that "the degree of Doctor of Medicine has lost its original character," that it is not a warranty as it purports to be, and *once was*, that the possessor of it, is a fully-instructed and competent physician." "The title of Doctor is ceasing to be a distinction. *The only requisite is the cash or credit for the cost of the tinplate on which it is painted;—the M. D. is fast sinking, and will soon reach the same ebb,*" &c. &c. Again Professor J. observes :—"Amidst the general decadence which threatens the medical profession, and disrepute our shadowing medical honors, it will be incumbent on the schools of highest reputation, that they should maintain a firm ground.

Let them urge on the cultivation of medicine to its highest point as a science, by full and adequate courses. Let them convince the students, that it is not for their interests, that medicine should be slightingly taught, light as a school-boy's task, but must be labored out by application and hard study, through scientific and philosophical instruction. Let them stand firm to their diplomas, and refuse them to the incompetent, and when not fairly earned after a close scrutiny."

We would second this motion with all our heart. We believe that it is the endeavor of Professor J. and his colleagues to give this character to the Diploma of the University of Pennsylvania, and yet we cannot but recollect that the requirements in the same University have been gradually lessening, until at present far less is required for the degree of M. D. than was necessary at its first organization for the degree of A. B. We cannot but lament that this, "the oldest school in the country," did not "stand firm," and refuse their Diplomas, except to those possessing the solid and high acquisitions laid down in the first circular of the institution, issued by Drs. Shippen and Morgan. Had it done so, other schools would have been compelled to follow in its wake, and we should now see a far higher standard of education in all our medical colleges. As the University of Pennsylvania was the first to set the example of "decadence," and fall from its first love, so may it be first to return to that exalted position, whence it has fallen, that its degrees may again "bestow honor, inspire confidence, and be a passport to practice among the intelligent," which according to Dr. J. cannot now be affirmed of the degree of M. D. from any of our colleges. We should hail such a movement with the highest satisfaction, and we pledge what little influence we may wield, to induce other medical schools to adopt the same standard.

The discourse of Professor Dickson is worthy of his high reputation as a man of refined and polished taste and profound scholarship. Like that of Professor Jackson, it also treats of the all-absorbing topic of medical education and reform, and the measures of the last National Medical Convention, are discussed at some length, and with discriminating judgment.

"Medical reform," says Dr. D., "is the order of the day; and those who know the best condition of things in medicine, whether considered as an art or a science, are most thoroughly convinced of the reasonableness of the demand, and the call for prompt compliance with it—the inevitable necessity of vigorous and earnest action. This will appear clearly whether we regard our actual position internally and absolutely, or externally in our social relations to the community, and comparatively with other departments of learning."

With respect to the recent Convention, Dr. Dickson thus speaks :—

"A National Medical Convention was held in May last, in New York city, consisting of delegates from a great many portions of the United States. This highly-respectable body, during their session, entertained several impressive resolutions and appointed an adjourned meeting for their further consideration, to take place in Philadelphia in May, 1847. Among these, they advocate the expediency 'of a National Medical Association for the protection of the interests of the profession—for the maintenance of their honor and respectability—for the advancement of their knowledge, and the extension of their usefulness.'

"They farther recommend the 'adoption of an elevated and uniform standard of requirements for the degree of M. D. by the Medical Schools of the United States, and of preliminary education and attainments, to be exacted of students of medicine before they are received as such, and of the reception by our whole body of the same code of Medical Ethics.' And lastly, they declare the sense of a large majority of the Convention, that the union of the business of teaching and licensing in the same hands is wrong in principle and liable to great abuse in practice,' and suggest the appointment of a Licensing Board in each State, 'composed of representatives from its Medical Colleges in fair proportion, and the profession at large.'

"In these views, I fully and unhesitatingly concur; and shall now proceed to offer, in support of them, such arguments and illustrations as may be condensed within the admissable limits of the present occasion. I know not how I can better employ the time allotted me for addressing you at this, our first meeting. Several of you will be soon eligible as members of this great Convention; many, if not most of you, will join, I trust, without delay, the National Association, to which it will give birth before its final dispersion; and all of you are profoundly interested in the acceptance and prosecution of measures adapted to elevate the character of the profession to which you belong, and to enable it to effect, more fully, its lofty objects and beneficent purposes."

In regard to raising the standard of preliminary education, Professor D. very wisely suggests, that great care should be taken to regard the matter in all its extensive relations, before any rule be laid down; that we should not make impossible demands, nor forget the great differences that exist not only between ourselves and our brethren in the older communities of Europe, but also among the several sections of our own country, the standard of education being higher in large towns and cities, and in the older states, than in the scattered population of agricultural districts and newly-settled territories.

In relation to the final examination and the degree of M. D., Professor D. remarks:—

"It is a grievous charge against the profession in these United States that its highest nominal rank is attainable at such a low rate of scientific acquirement, and with so little expenditure of time and labor. One cannot help being struck with the immense difference in this regard between us and our transatlantic brethren. In France, the candidate must attend four courses of lectures at least, upon all the various branches of medical science, and undergo three examinations, some of the answers at which must be written extemporaneously, and in full detail. The 'preliminary literary guarantees' demanded of pupils are a Bachelor's degree in Arts, and a Bachelor's degree in Sciences. They presuppose a classical and scientific education of ten years' duration. Yet the Medical Congress which latety met in Paris, a most august and imposing body, while they express their approbation of these preliminary guarantees as 'sufficient but not too onerous,' recommend as expedient that the duration of medical studies now occupying a period of *four* years be prolonged to *five;* that an examination be exacted at the end of *each year;* and that all students be obliged to serve for at least *a year* as dressers in a hospital.

"In England, the degree of Doctor of Medicine is not to be reached with less than eight years of study. At the University of London, the most liberal of the English schools, the student cannot even enter without an examination; he cannot be matriculated unless he 'shows a competent knowledge of the classics, including the English language, history, and geography, mathematics, and natural philosophy, or chemistry.' Before graduating as Doctor, he must have passed two examinations for the Bachelor's degree, and 'a third, which is final;' exhibiting his attainments not only in 'physiology, general pathology, general therapeutics, hygiene, surgery, practice of physic, midwifery, and forsenic medicine, or medical jurisprudence; but also in logic, and intellectual and moral philosophy.' The number of persons admitted last year to the Doctorate of Medicine in England, was not more than 77; in our own country it amounted to fully 1000! Within the last three years, the whole number of those licensed to practise as physicians, surgeons and apothecaries in England and Wales, is stated by the Medical Gazette at 2,721, being an annual average of 907. It is impossible to ascertain how many among us procure or assume the license to practice, which is indeed almost absolutely without restraint or limit."

As the profession is likely to remain unprotected by any legislative enactments, (in the necessity and propriety of which, we fully concur in opinion with our author,) Dr. D. thinks it becomes the profession, to consider how it shall preserve itself from utter prostration and annihilation. Believing that we cannot require any high standard of preparatory education, he thinks that we are bound to insist on a long-protracted and extensive course of technical studies. Opportunities must be multiplied to the student, and he should be kept long in contact with the sources of information; our systems should be accommodated to the wants and requirements of the average mind—the ordinary capacity. Difficulties are to be overcome, dulness and indolence to be legislated for. Dr. D. presents a graphic sketch of what he calls the American mode of study in the following passage, which we quote at the risk of again being denounced as slanderers of the profession.

"Text books read exclusively or almost exclusively, cursorily, hastily; two half courses or one brief course and a half of lectures attended—listened to perhaps; a single dead body dissected under the eye of a Demonstrator, perhaps an arm only or a leg; a few surgical operations witnessed, such as may accidentally present themselves within the six months spent at the colleges; a few patients seen in the wards of a hospital at intervals of days, or it may be weeks. Our schools generally require three years of such study; but how seldom is even this rule complied with. The standard is so low, that any common industry may overleap it in half the time. We demand the legal age of maturity to be attained before the reverend Doctorate shall be reached—but our transatlantic youth, like the country which gives them birth, are of so quick and percocious growth, that they are universally ripened into grave manhood at or before twenty, if the family Bible and the parish register are to be trusted."

Again,—

"It is in reference to this matter, principally perhaps, that a National Convention of Physicians, and the influence which it is capable of exerting, will be available. The relaxation of definite rules—the depreciation of the requirements for collegiate honors, are clearly owing to the colleges themselves, and result from a vehement competition—growing every day more reckless on account of the multiplication of schools. Unless some concert of action be agreed upon, the Faculties will continue to dread the suicidal effect of any special stringency or precision, in repelling students and reducing the numbers of their classes. With this concert of action, however, much may be gained; for even if some of the schools prove recusant, their refusal to be bound by a general law will serve to divide the colleges themselves into two grades—one of higher requisitions; and thus we shall establish a precise line of distinction between the higher and lower order of attainments. The title—*per se*—I need not tell you is already worth nothing. It is either assumed at pleasure or forced upon the tyro and the quack; and what I am obliged to share with the ignorant purchaser of a 'patent right,' or the concoctor of secret nostrums—the mere seller of drugs, or the unprincipled pow-wow conjuror and mesmerist, I not only cease to value, but positively contemn.

"It has been proposed as a remedy for this state of things, confessedly so unhappy and injurious, that the collegiate honors of medicine should be dispensed, not by the teachers or professors of the several schools, but by trustees, committees or other bodies, organized for the purpose of examining candidates and conferring the merited titles. This proposal would be reasonable enough if the graduating power was necessarily the licensing power, and if a diploma gave a monopoly or privilege in practice. But this neither is, nor perhaps ought to be the fact. Those who are fit to be entrusted with the high office of instruction, cannot surely be unqualified to judge of the attainments of their pupils; but while their competency has been admitted, it has been suggested that their judgment is likely to be warped by partialities and prepossessions of various character. The evil thus supposed to arise, may, however, be abundantly obviated by leaving the scholastic reputation of the colleges to their own care, while the community is guarded by proper regulations of which I shall speak hereafter—from the intrusion of unfit practitioners"

Prof. D. thinks, that when a fair standard of professional requisition has been agreed on and established, the position of any school, may be readily known, in the first place, by its adhesion to the common body of rules ; and secondly, by the general character of its graduates. He thinks there are some advantages connected with public examinations, as at Geneva ; but that there are some weighty objections against them, the principal of which is, that they constitute very imperfect and often deceptive tests of the attainments and standing of the candidates. This is doubtless true, and were they to be depended on alone as the test of qualification, they would be undoubtedly insufficient and unsatisfactory. But in addition to these, the professors in the above Institution, examine the class previous to each lecture upon the preceding one ; some if not all the professors spend considerable time, previous to the final examination, in examining the candidates for graduation upon the subjects of their own department ; then follows before a joint meeting of the faculty, a close and careful examination by each in his own branch, and then, if, upon a joint vote, the student has a majority on his side, he is allowed to appear before the joint body of professors and curators for his final trial. This system has hitherto worked admirably, and furnishes a satisfactory guarantee, that the doctorate is not unworthily conferred ; the objections, therefore, urged against this plan by Dr. D. appear to us to be not very weighty, though we coincide in many of the author's views in connection with this matter.

With respect to the prejudice often expressed by physicians respecting the result of examinations of classes in our medical schools, Prof. D. remarks :—

"It is often imputed as a fault, nay, a fault deserving severe censure, that they are too lenient—that too large a proportion of the classes succeed—and that too few are 'rejected.' Nothing can be more unjust or groundless than these views. In our academical institutions the *rule* is, that the classes shall graduate; the *exceptions* are comparatively of small number. Why should it be otherwise with us? If tutors and professors have done their duty faithfully, those who have gone through the prescribed course ought to be fairly prepared for a certificate to that effect; and that is all the value—the true value of a diploma. The real cause of complaint would be, and *is*, that the standard is too low—not that too many had come up to it. No one denies or doubts that *it is* too low in our country everywhere—far too low ; and among others I have professed my anxious desire to elevate it, and place the American physician on a level with his transatlantic brethren ; but until something is done with this purpose, I will say that the college must be indeed ill provided with teachers and means of instruction—or exceedingly unfortunate, whose Faculty are at present often under the necessity, the wretched necessity of rejecting any candidate who has fully complied with their requisitions. Such cases, I fear, will occasionally occur to all of us; but instead of feeling it to be a matter of regret or apology that they should seldom offer themselves in the institution to which I have the honor to belong, I am, on the other hand, proud to say, that our commencements are frequently in the old phrase 'Maiden Sessions,' in which we enjoy the comfort of carrying through a series of examinations, which, if not altogether satisfactory, yet, on the whole, present no reason for inflicting on any one of our pupils the intolerable pang—the indelible stigma of a rejection. This we are indeed always anxious to avoid. It is our studied policy to prevent, if possible, the application of any candidate of whose qualifications we entertain, previously, any serious doubt: and as I have said already, we cannot help knowing, with probable accuracy, the actual standing of all under our care."

In regard to the uniform and elevated standard of requirements for the degree of M. D., which is to be discussed in the next National Convention, for adoption in the medical schools of the United States, Prof. D. thinks that we should be governed somewhat by the preliminary education of pupils; that students who have not pursued classical studies should be required to pass at least five years under the care and instruction of some established practitioner, and to attend three courses of chemical and anatomical lectures, dissecting personally at least two entire subjects, and two complete courses on all the other branches taught in the schools; meaning by *complete, actual* attendance throughout, which shall be proved, as in Paris, by frequent inscriptions on registers kept for the purpose; "not the *implied attendance* now customary in our country, when a student may 'take out his tickets' 'and go through the whole business of the session by proxy; seeing the Lions' of our cities—partaking of all their amusements—and visiting all their places of resort, whether creditable or discreditable, whether by day or by night—their theatres, circuses, race-courses, night cellars and gambling houses."

Three years of medical study, Dr. D. thinks, should only be required of those who have received the degree of Bachelor of Arts, together with two full courses of lectures, with dissections. It is also suggested that medical schools should demand from their classes a prescribed course of medical reading, as close familiarity with good books constitutes, perhaps, the best test by which we shall separate the quack or impostor from the scientific physician. The student is to acquire, early in life, a taste for literary pursuits, a fondness for extensive reading, else he will make little progress, and pass through life without communicating anything valuable to others, or adding anything to the general stock of knowledge. In relation to the resolution passed by the Convention, that "the union of the business of teaching and licensing in the same hands is wrong in principle, and liable to great abuse in practice," and that "a Licensing Board should be appointed in each state, composed of representatives from its medical colleges in fair proportion, and from the profession at large," Dr. D. thinks that the views laid down "are substantially correct, and commend themselves to physicians everywhere, and to the public at large," but that they comprise numerous difficulties as to the details, inasmuch as the laws in the several states have varied greatly in regard to the license to practise physic. We have, however, already exceeded our limits, and must draw to a close. We cannot, however, refrain from quoting the following remarks, which are equally just and forcible:—

"It is not enough that this matter should be left as it now is, merely to free competition and social patronage. In all other professions besides ours, the absolute necessity for protracted, careful and diligent training, is universally acknowledged. To every mechanical trade, an apprenticeship must be served; book-keeping does not come by inspiration; a formal examination, ordered by the Judge from the bench, and conducted by grave associates of the long robe, must precede admission to the bar; a pilot cannot attain, without serious labor and assiduity, a regular branch; an engineer must rise by accumulating proofs of theoretical qualification and practical competency; the pulpit of every sect is guarded by custom, conventional arrangement, and positive regulation. In compensation for these restraints, carefully defined by ordinance or universally recognized, society, by law or by customs having all the force of law, confers on those who comply with the conditions thus imposed, certain privileges of specific value and established importance. An intruder is not permitted to deliver his drowsy common-places in the church; may not annoy his Honor in Court with unskilful and irrelevant pleadings; or blow up a steamboat, or locomotive, or run an unlucky vessel on a bar: these immunities are reserved for the formally initiated. But neither by law nor custom among us is any one prohibited or prevented from undertaking 'to minister to the mind diseased,' or the body imbecile, or in pain, or threatened with dissolution. '*Hic patet ingeniis campus*:' this field is open to all adventurers without restraint of time, or teaching, or character; and the result is as obvious in fact as it was easily and clearly foreseen to be inevitable. Education and diligence, scholarship and learning, enjoying no privilege, are at a discount; they are rather impediments than advantages. They interfere with the intolerant and arrogant pride of republican equality, and are therefore regarded with suspicion and dislike. I say it with pain and shame, with the profoundest mortification and the keenest regret, the influence of these circumstances upon our noble but depressed profession is but too visible, and it is to be most seriously feared that the medical character, already impaired in some of these United States, is deteriorating in all. We are loudly called on for an effort to restore and maintain it. Conventions and conferences, and general assemblies, may depose an unworthy brother from the clerical dignity—the bar may expel a discreditable member by a public and official act of great force and weight—but we have no such resource. Our local societies are destitute of power, because those who are fearful of their control keep aloof from them. A National Medical Association, however, may, if well organized, well officered, and well conducted, through its branches, or affiliated societies diffused over our wide and still expanding territory, exert a most beneficial influence, inevitable and irresistible. I trust that the organization of such a body may be effected at the next meeting of the Convention, and would fain hope that the countenance and aid of our government may, in some constitutional mode, be extended to it; perhaps through a recognized connection with the National Smithsonian Institute."

Art. XVIII.—*Materiæ Medica and Therapeutics, including the Preparations of the Pharmacopeias of London, Edinburgh, Dublin, and of the United States, with many new Medicines.* By J. Forbes Royle, M. D., F. R. S., Prof. of Mat. Med. & Therapeutics, King's College, London. Edited by Joseph Carson, M. D., Prof. of Mat. Medica, in the Phila. College of Pharmacy, etc., etc. With 98 Illustrations. Phila., Lea & Blanchard, 8vo., pp. 689.

The student of medicine in these United States is not likely to suffer for want of text-books in any of the departments of the science. We had supposed that there was no particular call at present for another treatise on the materia medica, so soon after Dunglison, Pereira, Bell, Thomson, Paris, Murray, Eberle, Chapman, etc. etc.; but publishers after all, are the best judges of what is wanted. If a book is not needed, i. e., will not sell, we may be certain, it will not be printed. We say this of such houses as Lea & Blanchards', who have an intuitive knowledge of what is desiderated by the profession, and who never make a blunder. Well then, "What of this new book?" say our readers; "Shall we throw by every thing on our shelves, and purchase Royle?" Kind friends, you need do no such thing. Royle is a good book, a capital book; and so is Dunglison; so is Pereira, and many others; some of these contain all there is in Royle, and perhaps a good deal more. Discoveries are not made so rapidly in the Materia Medica, as to demand a new book every quarter, to post them up. The author finds an excuse for publishing in the "complaints of pupils," and in his conviction "as a teacher, that the student requires something *systematic* to study, which brought up to the present time, should be sufficiently full for information, and yet as short and condensed as was compatible with the avoidance of being superficial."—(Preface.) Just so; and then the Professor goes on to say, that "he has been unable to satisfy himself on either of these points." Just as we should have expected. In justice to the work, we ought to say, that it is an exceedingly valuable one, and in the judgment of the editor, than whom there is a no more competent judge, it contains a great amount of new and interesting matter. It appears to us to be well adapted as a Text-book for students; containing perhaps, as much matter as would be profitable for them to go over during their attendance upon lectures, and the illustrations are certainly superior to those heretofore given in works on this subject. The editor has supplied very completely, all that was wanted in relation to the indigenous articles of our own country, and the work may be confidently recommended to both students and practitioners, as not behind the best extant.

Art. XIX.—*Lectures on Subjects connected with Clinical Medicine, comprising Diseases of the Heart.* By P. M. Latham, M. D., Fellow of the Royal College of Physicians, etc. Phila., Barrington and Haswell, 1847. 8vo., pp. 362.

This is a purely practical work on the important subject of diseases of the heart, and especially adapted as a manual in studying this class of affections. Though not as comprehensive as the great work of Dr. Hope, it is nevertheless in some respects still more useful, as everything is made plain, even to tyros in cardial knowledge. The purpose of the writer seems to have been, to have regarded diseases of the heart only in one point of view; that is, as they appear in the living subject, including, however, under this view, the several objects of their clinical diagnosis, and their clinical history, and their medical treatment. These have all been illustrated by the able and experienced author in a most interesting and lucid manner, so that hereafter no work will be regarded as more essential in studying diseases of the heart than this of Dr. Latham.

Art. XX.—*The Water-Cure in Chronic Diseases, etc.* By James M. Gully, M. D., etc. New-York, Wiley & Putnam, 161 Broadway. 12mo., pp. 404.

This is altogether the most able and scientific work on the water-cure that we have ever met with, and may be read with much profit by every medical man. We do not, of course, adopt all the views of the writer in relation to the medicinal uses of water, but we can subscribe to a great deal that he lays down, as we have verified many of the statements in our own practice. We do not wish to be understood by this that we are believers in hydropathy, as it is now taught and practised, for we consider it little better than arrant quackery; but we do believe in the proper and frequent use of water cold, hot and tepid, and all kinds of baths and douches, when judiciously prescribed, for the treatment of various diseases; and we hope to see the time when this pure element of nature is more generally resorted to, both as a hygienic, prophylactic, and medicinal agent.

Art. XXI.—*Six Lectures on the Uses of the Lungs, and the Causes, Preventions, and Cure of Consumption, Asthma, and Diseases of the Heart; on the Laws of Longevity, and on the Mode of Preserving Male and Female Health to an hundred years. With* 28 *Illustrations. Designed for all Classes of Readers.* By Samuel Sheldon Fitch, A.M., M.D. H. Carlisle, 707 Broadway, N. Y.

The importance of the subject, treated of in the above work; the authoritative manner in which it is announced, as coming from a master of arts and a doctor of medicine, the announcement that it is intended for all classes of readers, and above all, the encomiums which have been lavished upon the book by the secular papers, entitle it to a brief consideration.

The author in his introduction tells us, that in "1827, whilst a student of medicine in Philadelphia, he discovered the grand use of the lungs, and thereby laid the foundation of a scientific, rational and certain method of elucidating and treating their diseases." "For twenty years with some interruptions, diseases of the chest have been his study." He says, "The writer's experience is derived from an observation of more than five thousand cases, within the last three years." "To render the lectures effective upon the reader, it is neccessary that perfect confidence should be placed in the statements and conclusions."—*Introduction.*

In order to secure this confidence, the Doctor first gives us a long list of certificates, etc., these it is not necessary to notice.

"Lecture 1, on the uses of the lungs and causes of consumption."

It is perfectly true as stated, that, "Correct knowledge to each individual in society, on the subject of health is what is required," he says, "It is this, which is my apology for calling multitudes together, to lecture to them on the principles of health and causes of disease." If the information imparted by Dr. F., had been "correct knowledge," no apology would be needed. There is no want more strongly felt than this knowledge, and no vocation in which man can engage, more noble, more benevolent, or more deserving the thanks of their fellow-men, than that of imparting a "correct knowledge," to each individual on the subject of health. In the same proposition should be the contemnation and detestation of the man, who, for mercenary motives, teaches that which is not correct, a knowledge which "but leads to bewilder and dazzles to blind." To which of these belongs the author of the book before us, we shall leave our readers to judge, when we have finished the notice of his book.

"Allow me to repeat, pulmonary consumption is caused by a general or partial closing of the air cells, either from external compression, internal engorgement of the walls of the air cells, or the depositions of foreign matter in the air cells, as chalk, bony matter, &c." "*It is utterly impossible to have pulmonary consumption unless the air cells are more or less obliterated.*" "*The disease progresses as the air cells are progressively obliterated.*" It is scarcely necessary to say to medical readers, that the Dr. has mistaken the effect for the cause, and that in truth the air cells are obliterated as the disease progresses. The Dr. says, "From vast observation and experience, I unhesitatingly assert, that consumption is one of our most curable diseases, and is easier prevented and warded off than any herediatary disease to which we are inclined."

It is evident, that either our author uses the term consumption very differently from its ordinary understanding by the profession, or asserts what every tyro knows to be untrue, indeed, he himself admits in another place, "that where there is extensive disease and ulceration any where in the lungs, and the rest of the lungs badly tuberculated and with this state the general health much wasted and broken," "in the larger number of cases, the patient sinks to his final rest."

Now this is precisely the disease which physicians have said was incurable. It is universaly admitted by the profession, that even where ulceration exists, if confined to a small portion of the lung, the remainder being in a healthy condition, the patient may recover. Dr. Fitch informs us, that in 1827, he discovered what he conceived to be the grand use of the lungs, viz.: "They give to the human machine its power of action. This power exists in the atmospheric air, and the lungs are the medium by which and through which, that principle which gives the human machine its living power is conveyed to it." "The lungs have the same relation to the human machine, that the water-wheel has to the mill it moves." If this was intended only for professional ears, comment would be unnecessary, but we are informed that it is intended for "all classes of readers," and unfortunately there are not a few who judge of the profundity of an assertion by its incomprehensibility. Every physiologist knows that the above assertion as to the use of the lungs is the merest nonsense, the lungs are necessary to give power, as every one knows, so is the heart, the nerves, the blood, and muscles, &c., and one is no more necessary than the other.

Dr. F. tells that a "perfect cloud," rested over the uses and diseases of the lungs, "Their grand purpose is entirely overlooked, and unknown by the mass of medical and other men;" he says, "I do not know that I ever met two physicians, who were of any eminence, and not mere imitators, who thought or acted alike in managing consumption, *or who had the least notion how it might be prevented,*" "nor have they any confidence in their own practice, in few cases have they the least hope of curing the disease, or of preventing it." "Allow me here to say, from a vast experience, that nine-tenths of all that is laid down in medical books, taught in medical schools, or pursued in medical practice, for the prevention and cure of consumption, is calculated to make the disease, not to cure it." "This want of success, of the school-bred physicians, is owing to their profound ignorance of the lungs." "Why do they not, at once, as honest men, tell their consumptive patients, we cannot cure you?" &c. It is unnecessary to extend further this abuse of the profession, with which the book is filled, if we show, as we trust we shall be able to do, that every thing of any value in the book, has been derived from standard authors in the profession, our readers will be able to judge where the dishonesty lies.

Causes of consumption.

Dr. F. divides the causes into three great classes.

"1. Mechanical causes, loss of symmetry, external and internal.

"2. Effeminacy and debility of the constitution.

"3. Poisons, inhaling dust, &c."

It is unnecessary to state, that all writers, and almost all practitioners, agree in the injurious effects of compression of the chest, and in the 2d and 3d causes mentioned by Dr. F.,—thus, Sir James Clark places a general feebleness of constitution as one great cause of consumption, next to this, "improper food;" next, an "imperfect supply of pure air;" next, deficent exercise; he says, "If a due supply of proper nourishment and pure air is necessary to nutrition, bodily exercise is equally necessary to apply such nourishment to the growth and development of the body." Excessive labor, improper clothing, abuse of spirituous liquors and mental emotions are enumerated as causes. Dr. Clark says, too close application to study is a powerful cause of tuberculous disease, it operates in several ways—it necessarily implies sedentery habits. In addition to these the sensorium is so much exhausted by excessive exertions, that the nervous system generally is weakened, and the various organs, of which the functions are essential to health, are deprived of their due proportion of nervous influence." "Mental depressions hold a very conspicuous place among those circumstances, which diminish the powers of the system generally, and often proves one of the most effectual determining causes of phthisis. Disappointed hopes, slighted affections, loss of friends, and reverses of fortune, exert a powerful influence in inducing phthisis, in persons predisposed to the disease." Dr. Fitch says, "Mental emotions, grief, fear, despondency, &c., incline to depress the energies of the system, and leave every part to be inactive, in which the lungs must participate, and so must suffer."

Dr. F. also enumerates all trades and occupations which confine the body in a restrained position, or in an impure air, or which prevent bodily exercise as causes; in this all agree, but he gives one cause which is new, and this seems the great object of his book, this is "falling of the bowels," to this the Dr. attributes at least one-third the cases of consumption.

"The chest is a basket of bones, and open at the bottom, so that on sitting up, the trunk of the body, all the organs incline to fall downwards to the groin, and into the basket of the hips, and they would all fall through, causing instant death, if this were not prevented, and these all kept perfectly and beautifully in their places by the basket of the hips falling backwards, and by the natural belts that cover all the front and sides of the trunk of the body, which arise from the ends of the breast bone, and the lower edges of all the short ribs and back bone, &c." "The midriff or diaphragm, is a fleshy curtain drawn across the base of the chest, and fastened to the middle of the chest, and to the breast bone and ends of the short ribs and back bone. On its sides it is entirely loose, and its loose portions open up into the chest, like inverted bowels, rounding up against the base of each lung, &c." To a person who has ever seen the interior of the human body it is unnecessary to say that this anatomy must have been given to show the necessity of abdominal supporters, and is very far from conveying an accurate idea of the anatomy of the parts as they actually exist. Thus the lungs, instead of being liable to settle down, are firmly secured by the attachment of a duplicature of the pleures to the back bone, and the "diaphragm" instead of floating loosely, is firmly attached by its whole edge, and only moves as the ribs move to which it is attached.

Dr. F., in speaking of mercury as a cause of consumption, has the following: "In many parts of the United States, cities, towns, villages, and country, are strewn with the wrecks of living men, women and children; whilst the grave-yards conceal the decaying remains of thousands killed by mercury." Is it surprising, that public confidence should be shaken in the profession, when we find such language used by one claiming to be an educated physician.

"Lecture 2, prevention and cure of consumption." The profession no doubt will be surprised to learn, that "diseases of the heart," "asthma," "swelled tonsils," "common cold," and "hysteria," prevent the cure of consumption.

Dr. Fitch, in common with medical writers, recommends a plain but nutritious diet, free exercise in the open air, cheerfulness, a change of occupation, and sometimes a change of residence; the only peculiarity is, that he is too indiscriminate in his recommendation of exercise, exposure, and cold bathing. We have not the least doubt, that the fatal termination of the disease, will be hastened in many cases from the indiscrimate use of the means recommended by Dr. Fitch. Dr. Forbes, in the Cyclopædia of Practical Medicine, article *Bathing*, speaking of the use of the cold bath in debility, says "there is one cause of debility often met with in practice, which requires great caution in prescribing the cold bath, and where frequent mistakes are committed for want of due discrimination, we allude to that state of debility which so often precedes the development of tubercles in the lungs, and which has been so well described by Dr. Clark, under the name of tubercular cachexy. If tubercles already exist in such cases (and we know that they often do, without any external or local symptoms of their presence,) cold bathing will almost always be found to disagree, and will tend to accelerate the future disorder of the lungs."

Dr. Clark, whom we have before quoted, recommends a resort to all those means which tend to invigorate the constitution, as a regulated nutritious but not stimulating diet, systematic exercise in the open air, he says, "we are in the habit of recommending the full expansion of the chest. We desire the young person, while standing, to throw his arms and shoulders back, and while in this position, to inhale slowly as much air as he can, and repeat this exercise at short intervals several times in succession, when this can be done in the open air it is most desirable, a double advantage being then obtained from the practice." After enumerating a variety of exercises, as fencing, the use of dumb-bells, &c., he adds very properly, "Of course, all these modes of exercise are quite incompatible with the existence of organic disease," and directs caution in their adoption; in short, there is not a principle of prevention laid down in the work of Dr. Fitch, with the exception of his supporters, tubes, and braces, which are not found recommended with proper guards and qualifications by the standard writers.

Cure of consumption.

It is only necessary to say, that Dr. Fitch, recommends the same means for cure as for prevention, viz.: the use of the breathing tube, abdominal supporters, shoulder braces, &c., free exposure at all times and exercise in the open air. Dr. F. labours to impress his readers, with the idea that the regular profession confine their patients to warm rooms. What are the facts? Sydenham recommends exercise in the open air, especially riding on horseback. Rush, the American Sydenham, recommended it very strongly, at all times, and in all weathers. Dr. Parrish one of the ablest and most distinguished of American physicians, attributed his own recovery to this practice, and recommended it to his patients. Dr. P. requested that his lungs might be examined after his death, and told where they would find traces of previous disease; he lived to an advanced age, and a post-mortem examination verified his prediction.

Dr. Clark, whom we have before quoted, and who is the highest authority in the profession, says, confinement is rarely advisable, when we may reasonably entertain a hope of recovery, and adds, "indeed it forms an obstacle to the best means of improving the patient's health." Dr. Dunglison says, "The general rule should be, to take exercise in the open air, whenever it is dry, and the temperature, even if cool, tolerably equitable."

Our notice has extended far beyond our intentions, or what the merits of the work entitled it to, we were anxious to enable our readers to judge for themselves, it will be seen that the only novelities which it contains are the recommendation of the breathing tubes, the braces and supporters; the tube has been tried and condemned by the profession; the only possible advantage is the exercise imparted to the lungs, and this is far better effected in the mode recommended by Dr. Clark. The theory of the supporters is predicated upon a false notion of the anatomy of the chest. The work is got up in the style of the grossest empiricism, adorned with wood-cuts which have no relation to the subject matter of the book, supported by a long string of certificates of the wonders the author has performed, and embellished with the usual quantum of abuse of the medical profession.

It is hardly necessary to say, that an honorable high-minded medical man, had he supposed that he had made any discoveries or improvement in the means of preventing or curing this dreadful malady, would have addressed himself to his professional brethren. No class in community would more rejoice at any improvement in the treatment of this disease than physicians, and they would be the first to herald the praises and to reward the fortunate discoverer.

We despise and condemn the empiric, who tampers with remedies of the properties of which he is ignorant, but language fails in terms to express our detestation of the man of education and intelligence, who, for sordid gain, tampers with the health and lives of his fellow beings, who hypocritically professes to be wiser, or more holy than others, and who the more effectually to gull the credulous, vilifies and abuses an honorable profession of which he professes to be a member.

One word with regard to those papers that have lent themselves to palm off this production on community; one paper has set a noble example, by stating that it declined the offer of twenty dollars, for a favorable notice. Is it uncharitable to believe that the editors of papers that have been lavish in their encomiums, have pocketed the twenty dollars? We envy not the conscience of any man, who can, for this paltry sum, be bought to recommend and puff a production, calculated to do more mischief, than the efforts of all the unlicensed quacks in community. Is it not due from the profession to themselves to mark and withhold their patronage from such papers?

C. B. C.

ART. XXII.—*A Practical Treatise on Inflammation, Ulceration, and Induration of the Neck of the Uterus, with remarks on the Value of Leucorrhœa and Prolapsus Uteri, as Symptoms of Uterine Disease.* By JAMES HENRY BENNET, M. D., etc. Philadelphia, Lea and Blanchard, 1847. 12mo., pp. 146.

AN outline of the views on the subject of which the work before us treats, we are informed by the author in his preface, was hastily sketched and presented to the Faculty of Medicine of Paris, in the form of a thesis, on graduating at that University. The present more elaborate essay was published in parts in the "Lancet," and thinking the facts and views important, he was induced to reproduce them in the present more extended and complete form. We have thought this much necessary to say, in justice to the author, before entering upon the peculiar province of a reviewer of the practical part of the work before us. We hail with pleasure the appearance of any improvements or discoveries in the domain of that department of practical medicine—the pathology and treatment of uterine diseases—so much neglected by the general practitioner in this country; and with our author, we regret that false delicacy on the part of not only patient but practitioner, is so often allowed to hold so great and necessarily injurious sway, to the prevention and use of efficient remedies. Delicacy, carried to the extent that it frequently is, becomes absolutely criminal, and, moreover, reflects discredit on the profession, the patients always attributing to ignorance the excessive scruples of their medical attendants. Health and life are too valuable for every possible sacrifice not to be made when they are endangered. We make these remarks in reference to the examinations by the *toucher* or *speculum*, the use of which is so seldom resorted to by practitioners in private practice.

Our author divides his work, as the title indicates, into three primary divisions: 1st, Inflammation; 2d, Ulceration; and 3d, Induration of the Cervix Uteri. In treating of these subjects he speaks of the different conditions and character, 1st, as they occur in women who have not borne children; 2d, in women who are pregnant, or have borne children; 3d, syphilitical ulcerations; and 4th, cancerous ulcerations. In speaking of the treatment, he pursues the same order as was observed in the first part of the work; and as this portion of the work is that which will prove most interesting to our readers, we hasten to give an outline of the treatment observed in each. The remedies that should be resorted to in simple inflammation of the cervix, and those that will prove "the most efficacious is, undoubtedly, the solid nitrate of silver, lightly drawn over the inflamed cervix, and over that part of the superior parietes of the vagina which generally participates in the inflammation. The peculiar influence which the nitrate of silver exercises over inflammation of mucous membrane is recognised by nearly all practical medical men, and its use, either in solution, as an ointment, or solid, is daily becoming more general. On the cervix and on the vagina, it exercises the same beneficial effects as on the eyes, the mouth, the urethra, &c., and proves a most valuable remedial agent. After the mucous surface has thus been slightly cauterized, emollient or slightly astringent injections (acetate of lead, or sulphate of zinc) must be used three or four times a-day; complete rest must be enjoined; sexual congress strictly forbidden; and the general health attended to. The disease is nearly always so entirely a local one, that it is not necessary to resort to any general medication, unless the state of the health seems to demand it. A brisk purgative or two, however, can do no harm, and will often do good."

When, however, the case has been long neglected, which is too frequently the case, the inflammation passes on into the second form, or that called ulceration; here the superficial cauterization spoken of in treating of inflammation, unless the ulceration be slight, seldom produces the desired result.

> "The agents used for the cauterization of the ulcerated cervix are various The principal are the nitrate of silver and the acid nitrate of mercury. The latter is exclusively employed by many Parisian practitioners, among whom I may name M. Emery. It is a dissolution of deutonitrate of mercury in nitric acid, is much in use for the treatment of foul ulcers in the French hospitals, and has been adopted by the French codex. It is prepared in the following manner:—To four parts of mercury add, in a retort, eight parts of nitric acid; when the dissolution has taken place, reduce to nine parts by evaporation. It is a very dense dissolution of deutonitrate of mercury in an excess of acid, and contains 71 per 100 of the deutonitrate. This agent is a powerful caustic, giving rise to a white eschar, which does not fall for five or six days. When the inflammation is intense, the ulceration large, and the granulations redundant or unhealthy, it exercises a very prompt and beneficial influençe, generally cleansing and modifying the sore in one application. In very slight ulcerations, however, I think it is too powerful a remedy, and that the solid nitrate of silver answers the purpose much better."

When the applications just mentioned by our author fail, M. Jobert (de Lamballe) of St. Louis, uses with success the actual cautery. In respect to the fears entertained by some as to the dangerous results following the use of these remedies, our author remarks:—

> "As to the danger of metritis and peritonitis, on which some eminent practitioners who have written on the subject have laid so much stress, there is not a vestige of foundation for the fears which they have expressed. I have certainly seen cauterized, or cauterized myself, several hundred females,

and have never yet known a really serious accident follow. Cauterization, such as I have described it, may give rise to some few hysterical symptoms in nervous females, but that is all."

In the treatment of inflammation, ulceration, and induration in females who have borne children, the same remedies which have been recommended previously will generally suffice.

"This, however, only occurs when the nutrition of the engorged cervix has not been deeply modified by the subacute inflammation of which it has perhaps been the seat, for months, or years. Not unfrequently, especially in very chronic cases, the hypertrophy only diminishes to a certain extent under the above treatment, and even that very slowly, and then remains stationary, whether the ulceration heal or not."

When, however, extensive induration or fungous ulceration exists, these remedies will very frequently fail; then—

"In order to modify effectually an engorged cervix, which has resisted all other modes of treatment, the indurated organ must be deeply cauterized, either with the Vienna paste, (quick-lime and potassa fusa,) the plan adopted by M. Gendrin, or by the actual cautery, that followed by M. Jobert, (de Lamballe). The eschar which forms, in either case, is much deeper than that which is created when the fluid caustics are used. The inflammation which accompanies its separation is also much more intense, and generally propagates itself to the entire cervix. The result is, that not only is the hypertrophied cervix diminished by the extent of the eschar which separates, but that the healthy inflammation set up in the chronically indurated tissues gradually melts them, as it were; so that often, on its subsiding, the hypertrophied cervix has regained its natural size. When this result is not obtained by the first cauterization, a second or a third seldom fails to reduce the uterine neck to its normal dimension. With the disappearance of the hypertrophy also disappear the symptoms which it occasioned; the uterus returns of itself to the position which it naturally occupies in the pelvis, and the cure is *really* accomplished.

"If the Vienna paste is employed, the following is the plan pursued by M. Gendrin, which I likewise follow. I must first, however, state, that the Vienna paste, which is much used in France to produce deep eschars, is formed of equal parts of quick-lime and hydrate of potassa, reduced to a fine powder, and intimately mixed. This powder should be prepared only when wanted, and kept in a glass-stoppered bottle. To be used, it is made into a paste, with a few drops of alcohol, and the paste is then spread over the part to be destroyed. Its action is very prompt, and neatly circumscribed to the part to which it is applied. A thin layer of the paste, for instance, will destroy the entire thickness of the skin in three or four minutes, and that with but little pain to the patient.

"When applied to the uterine cervix, a large and conical speculum must first be introduced, and the engorged cervix made to enter its orifice; or should the cervix be too voluminous, the speculum must be firmly pressed on the part which it is intended to cauterize, great care being taken not to enclose between the rim of the speculum and the cervix a fold of the vagina. About as much of the paste as would cover a fourpenny piece, a line in thickness, must be placed on a triangular piece of diachylon plaster, one end of which is inserted lightly in the cleft extremity of a small stick. The caustic paste is then carried, by means of the stick, to the cervix, and applied to the centre of the part comprised by the orifice of the speculum. With the long forceps, cotton is placed carefully all round the spot on which the caustic is applied, so as to completely protect the neighboring parts; the stick having been withdrawn, the speculum is two-thirds filled with cotton or lint, which is firmly pressed against the uterine neck. The speculum is then extracted, the cotton which fills it being forcibly pushed back in the vagina with the forceps, as it is pulled away, so that the vagina remains thoroughly plugged.

If all this is carefully done, it is impossible for the caustic to fuse, and to injure the parietes of the vagina. In about fifteen or twenty minutes the cotton or lint must be gradually withdrawn by means of a bivalve speculum, and an eschar, of the size of a shilling, or rather larger, will be found where the caustic was applied. The vagina should then be washed out with a little tepid water, complete rest in bed enjoined, and emollient injections employed until the separation of the eschar, which takes place from the sixth to the eighth or tenth day."

By way of illustration, we will give a case, showing the success of the measures recommended.

"Julie Tonset, aged twenty-one, entered the Hopital de la Pitié on the 20th October, 1842. She had been delivered of a full-grown child a little more than a year previous. Shortly afterwards she contracted blennorrhagia, for which she was treated, during three months, at St. Lazare. She subsequently came to London, where she had two attacks of what was called, by her medical attendants, 'intestinal inflammation,' each of which lasted several weeks. She at that time experienced, she says, much pain in the abdominal lumbar, and inguinal regions—pain that was increased on standing or walking, and she had a leucorrhœal discharge. Six months previously the menstruation, which had before been easy, became painful, and only lasted a day or two instead of several. Since then she had had an abundaut leucorrhœal discharge, sometimes tinged with blood, and severe pains in the loins. She returned latterly to Paris, and consulted two physicians, who both told her that she was laboring under engorgement of the uterine neck. One said that it might kill her. Being dissatisfied with this opinion, she came for advice to La Pitié, which enjoys a great reputation for uterine disease.

"On examination, she was found to present the following symptoms:—Severe pains in the loins; also in the groins and the inner side of the thighs. When standing, sensation of pelvic weight and bearing down. She feels the uterus fall when she walks, and the lumbar pains are then increased. Abundant purulent discharge from the vagina. *Toucher:* the uterine neck is rather voluminous and hard, slightly painful on pressure, and presents a soft, fungous, uneven surface. The finger is tinged with blood. The uterus itself is also rather voluminous and painful on pressure. *Speculum:* the uterine cervix does not enter the largest-sized speculum, and is deeply injected. On both lips it presents red prominent vegetations; those of the under lip are the most considerable. There are several smaller ones on the vaginal mucous membrane, near its implantation on the cervix. These vegetations being considered syphilitical, the patient was put under a course of mercury. The hydrargyrum cum creti was the preparation administered. At the same time the vegetations were cauterized every fifth day with the nitrate of silver, emollient injections used three times a-day, hip-baths twice a-day; poultices applied to the abdomen, a light diet enforced, and the patient obliged to remain in a recumbent position.

"Under the influence of this treatment the vegetations rapidly diminished, and in about a fortnight had disappeared, leaving, however, an ulcerated surface. The engorgement of the cervix remaining the same, leeches were applied two or three times, but without any result. It was then resolved to cauterize with the Vienna paste. The first cauterization took place on the 15th of November. It was repeated twice, on the 1st and 15th of December—that is, at a fortnight's interval. The indurated and hypertrophied cervix diminished in volume after each cauterization, under the influence of the eliminatory inflammation; and after the third, returned completely to its natural size and consistency. The orifice of the os remained perfectly free. At the same time all the other disagreeable symptoms had disappeared. The uterus had risen, along with the cervix, into its natural position in the pelvis; the local pains had entirely disappeared, as also the leucorrhœal discharge. The general health had also become completely renovated."

Our author concludes his work by a short account of the treatment to be pursued in syphilitical and cancerous ulcerations of the cervix uteri; on the former he offers nothing new, and in the latter he condemns in toto the amputation of the cervix, even in localized cancer; but in cases when the disease is recognized in its first stage, a resort to the Vienna paste, a potential cautery, may be indicated.

To that portion of the profession whose attention has not been directed to the subject of which the work before us treats, we would recommend its candid and careful perusal. Many great and important improvements in the treatment of uterine diseases have, within a few years past, been made, the valuable and most practical portion of which are here presented to the reader in a clear and concise manner; and our thanks are due the publishers for presenting it to the American profession. S. S. P.

ART. XXIII.—*Encyclopædia Americana, Supplementary Volume; a Popular Dictionary of Arts, Sciences, Literature, History, Politics, and Biography. Vol. XIV.* Edited by HENRY VETHAKE, L.L.D., etc. Phila., Lea and Blanchard, 1847. Large 8vo., pp. 663.

THE Encyclopædia Americana has been so long and favorably known to the reading public that it is unnecessary for us to do more than call attention to the present volume. Since the work was first issued fourteen years have elapsed, during which many important events have occurred, and facts affording ample materials for such a volume as is now offered to the public, which have been posted up by the able editor in a very complete and satisfactory manner. As a book for ready consultation on all subjects of general or popular interest, there is none to be placed in competition with the Encyclopædia Americana.

PART III.

American Intelligence and Editorial.

The National Medical Convention.—The largest body of medical men ever assembled on this continent, will convene in Philadelphia in the month of May next, to deliberate upon matters connected with the present and future interests of the profession, and devise measures calculated to improve medical science. We regard it as a movement growing out of the universal thirst for improvement and progress, which marks the present age; a movement founded in a deep and wide-spread conviction of its utility and necessity, and which can no more be resisted than the waters of the Niagara can be turned back to their source; and why should there be any opposition to this desire of advancement in medical science and education, which characterizes the present era? He must be short-sighted, indeed, who does not see, in the signs of the times, that the professional mind is bent upon a fuller development of medical science and practice, than has yet been recorded in the world's history. In the language of another, the resolution is evidently taken, that there shall be a fuller investigation of theories and principles; a higher appreciation of the transcendant importance of medicine; a more systematic attempt to concentrate all human knowledge to work out its objects, regardless of prejudices and dogmas.

It seems to us, indeed, high time that the profession in this country should begin to move as one vast body; that they should avail themselves of the advantages of associated effort, to carry out the great ends of science and philanthropy, which belong to their high calling. While each year brings with it in Germany, Italy, England, France, and the Scandinavian countries, a large and enthusiastic scientific congress, why should the medical men of the United States be debarred from the pleasures and advantages of such a reunion? These meetings, it is well known, have proved of the greatest importance to science and to the countries of which we speak. So interesting and fruitful in good results have these scientific meetings proved, that similar associations of medical men have convened, in different countries of Europe, during the last few years; the proceedings of one of which, that which assembled in Paris during the last year, were given in a late number of our Journal. Is it strange, then, that the physicians of America should have imbibed something of the same spirit, and should be disposed to unite with their brethren abroad, in carrying out the same plan of associated effort and systematic organization? Indeed, there would seem to be far more need of invoking the spirit of association on this side of the Atlantic, where no reliance whatever is to be placed upon the aid of the General or State Governments, in fostering medical science; guarding the lives and health of the community against the deadly practices of empiricism: or protecting the rights and interests of the medical profession. Moreover, in some of the European countries, as England and France, everything tends to centralization; here every thing to diffusion. Paris, for example, with its numerous active scientific societies, to which nearly all the important facts and labors of the country are subjected; its hospitals, and other charitable institutions; its university, and its immense body of learned men—Paris, with all these, incloses within itself a permanent scientific congress, that permits no other, if, indeed, any other be needed. But not so in our country. We have, it is true, our seat of general government; we have two or three large cities, containing within their limits, many eminent men of science and letters; but we have no Paris, no one city which is destined, like Aaron's rod, to swallow up all the others. We believe, then, that associated effort is more loudly called for, more imperatively demanded by the profession here, than in any European country. It is alleged by our brethren abroad, that American physicians have, as yet, done but little for science. This, although not true to the extent alleged, is, nevertheless, a charge difficult to gainsay or disprove. There are not wanting isolated examples of physicians among us, who have done honor to themselves, to science, and their country; but compared with our vast extent and population, they certainly have been less numerous than might have been expected. Who can doubt that more would have been accomplished, if the medical profession had been early organized, with a view to a systematic division of labor, in advancing the science of medicine in all its varied departments? It would seem that each one has aimed at too much or too little. It has been truly remarked, that no one can have the necessary perfection of *all* the senses; no one can possibly understand the application of all the aids to research; no one can be the walking encyclopædia of the medical sciences, and the miracle of medical knowledge, which should understand the relation of the whole cycle of observanda. A division of labor has been found practically necessary, as well in the scientific as in the social world. Hitherto, however, the division of labor has been almost fortuitous; anything like a system, is of modern growth, and is to be found only in committees of investigation, which have arisen out of scientific societies. From these remarks, our readers will very correctly infer, that we are in favour of a permanent organization of the medical profession in the United States, for purposes of science, good fellowship, and the protection of their interests. The question of *medical education* will be *one* of the most important subjects submitted for its deliberative action; a problem which cannot be worked out in a day, and which may be involved in greater difficulties, than even now surround it, by hasty and ill-concerted measures. We have no desire to trench upon the duties of the able committee, to whom the plan of organization was submitted by the last convention; but we may be allowed to express the hope, that whether the association take the name of the *American Academy of Medicine*, or any other, it may have its active branches in every State, if not county, in the Union; that there may be sections, after the manner of the British Association, who shall have in charge those special branches of science which may be assigned them, and on which annual reports shall be made, to be published, like the Transactions of the society above mentioned, in one or more annual volumes. If this plan be carried out, as it may be, and as we fully believe it will be, the time is not distant, when we shall no more hear the question asked: "WHAT HAVE AMERICAN PHYSICIANS DONE FOR SCIENCE."

ABSTRACT OF THE PROCEEDINGS OF THE MEDICAL SOCIETY OF THE STATE OF NEW YORK, AT ITS ANNUAL MEETING, IN FEBRUARY, 1847.—We were much gratified in being able to attend, for the first time, the recent annual meeting of our State Medical Society, which convened at Albany on the 2d, and continued in session until the 5th of February. The representation from different parts of the State was highly respectable; and the entire proceedings were characterized by the utmost harmony and good feeling. Indeed, we have no recollection of ever having attended a medical convention, where such a variety of topics were discussed, sometimes of a character likely to excite controversy, or endanger conflicting interests, and where such perfect cordiality and unanimity prevailed throughout. The delegates were treated with marked respect by the Legislature, who granted their assembly-room for the delivery of the President's address; and during two successive evenings the members were entertained in the true Knickerbocker style, by Drs. Wing and McNaughten, whose generous hospitality will not soon be forgotten. The following is a brief summary of the Transactions, which will soon be published officially:—

On the convening of the Society in the Capitol, Feb. 2d, the President, Dr. John McCall, of Utica, read a very able address on the subject of medical science, its present condition, with suggestions for its improvement, which was ordered to be published. Communications were then read from the following societies on the subject of medical education, viz., Oneida, Albany, and Erie. A committee was appointed, consisting of Drs. Stevens, Lee, March, Brigham, and Burwell, to report on the subject of the President's address. Dr. A. H. Stevens, of New York, called the attention of the Society to the subject of idiocy, and offered the following memorial to the Legislature, which was adopted :—

" The Medical Society of the State, understanding that a bill is now before your honorable body, to provide for the instruction of idiots, take leave most earnestly to recommend the object, as one in their view eminently deserving of your favorable consideration, and expresses the hope that the great State of New York will not fail to secure to herself the honor of being the first among her fellows, in undertaking this great work of benevolence."

Whereon it was resolved unanimously, that the President and Secretary sign and transmit said document to the Senate.

The Treasurer, Dr. Van Olinda, presented his Annual Report. Dr. Davis, chairman of the committee on medical education, presented a report on that subject. An invitation was received from Professor J. McNaughten, to a social entertainment at his house in the evening, which was accepted. Reports, containing a list of the number of graduates, with the terms of study, were presented from the College of Physicians and Surgeons, New York, and from the Albany Medical College.

Dr. Blatchford, of Troy, offered the following resolution, which after some debate was adopted :—

" *To the Honorable the Legislature of the State of New-York,*

" The memorial and petition of the Medical Society of the State, respectfully sheweth, that a bill is now before your honorable body, granting aid to all the medical colleges and faculties in the State except the College of Physicians and Surgeons of New York. They ask that this institution may receive your support equally with the others, and the more especially as it has ever, and does now confer medical degrees, not in virtue of the recommendation of the medical faculty alone, but of disinterested parties, and is successfully laboring with kindred institutions, to elevate the standard of medical education, and your petitioners, as in duty bound, will ever pray."

A communication was then received from the Columbia County Medical Society, through Dr. Pruyn, delegate, being the annual address of Dr. Bates, to said Society, which was referred to the Publishing Committee.

Dr. Stevens read a very interesting Essay on the pathology of disease and the modus operandi of noxious agents in the production of disease, for which the thanks of the Society were presented, and a copy requested for publication.

On motion of Dr. N. S. Davis, twenty delegates were chosen to represent the State Society in the National Medical Convention, to meet in Philadelphia in May next. The following were elected :—

Southern District—John Stearns, John W. Francis, Edward Delafield, Jas. R. Manley, E. G. Ludlow ; *Middle District*—J. W. Sprague, J. McCall, A. Willard, N. S. Davis, P. H. Hard ; *Eastern District*—Joel A. Wing, Daniel Ayres, T. W. Blatchford, D. Clark, Morgan Snydre ; *Western District*—Maltby Strong, Alex. Thompson, L. J. Teft, G. W. Bradford, Enos Barnes.

In the resolution to appoint delegates, it was expressly stated that nothing contained in it, was intended to debar the several County Societies from electing and being represented by Delegates in the Convention.

The Committee appointed to propose subjects for the consideration of sectional Committees, reported through their chairman, Dr. Stevens, that the following subjects be embraced within these sections, viz. :—

First Section. 1. Public Hygeiene, 2. Statistics of subjects allied to medicine.	Chas. A. Lee, *Chairman.* James McNaughten, J. S. Sprague, C. B. Coventry, P. Van Buren.
Second Section. 1. Medical ethics, 2. Medical Education, 3. Forensic Medicine, 4. Agriculture,	A. Brigham, *Chairman.* N. S. Davis, T. W. Blatchford, Andrew Sill, Alex. Thompson.
Third Section. 1. Lunatic Asylums, 2. Public Hospitals, 3. Deaf and Dumb Institutions, 4. Institutions for the Blind and Idiots, 5. Public Dispensaries and Infirmaries, and Public Prisons.	Alex. H. Stevens, *Chairman.* Thomas Spencer, John McCall, T. R. Beck, B. Burwell.

The gentlemen whose names are placed opposite the sections, were subsequently chosen to take charge of these departments, and present annual reports upon the same to the Society. As the whole State is embraced in the plan, it is confidently believed that a very large amount of useful information, connected with these various important subjects, will thus be annually provided for the profession, as well as the public generally. Increased interest will also thus be given to the meetings of the Society.

A communication was received from Erie County Medical Society on the subject of admitting students to examination in some of our medical colleges, who have studied with irregular practitioners, which was referred to a committee to report upon the same.

A committee was appointed at the suggestion of Dr. Lee, to confer with the committee of the Legislature appointed to revise and codify the laws of the State, in relation to the medical laws, that they may be reduced to proper order, &c., and Drs. Lee, McNaughten and Wing were chosen on the committee.

Dr. Blatchford, of Troy, presented the following preamble and resolutions:

Whereas, Quackery of all descriptions and grades, physical and extra-physical, crude, sublimated, and transcendentalized, with and without substance, ponderous and imponderable, was never more rife in community, and never stood forth with a bolder front, than at the present time; and whereas, in the minds of many estimable individuals it has become so confounded with the scientific practice of our profession as readily to beguile the unwary, the duty seems imperatively forced upon us, as the accredited guardians of the public health, to disabuse the minds of the people as far as practicable, that they may understand that between quackery and science there is an irreconcilable difference—a bridgeless gulf; therefore

Resolved, That this Society highly approves the organization in the city of New-York, of the "New-York Academy of Medicine," and that in the harmony and full attendance which characterize their meetings, (from 100 to 200 being their usual number), we discover the harbinger of brighter days, the pledge of extended usefulness.

Resolved, That as far as it may be deemed practicable, it be recommended that voluntary associations of physicians be formed, whose duty it shall be to hold frequent meetings, to read dissertations on medical subjects; to relate interesting cases of disease; and interchange views with each other on all subjects connected with our profession; that thus, interesting and instructive matter may be in readiness to be laid before the respective county societies at their regular meetings, which will tend to call out the latent talent of the profession, and make our meetings something more than mere medical elections, while at the same time it will make manifest before the public, the wide difference between science and quackery.

The above preamble and resolutions were passed unanimously, and a committee appointed, consisting of Drs. Blatchford, Davis, and Ely, to correspond with the several county societies, and invite their co-operation in endeavours to elevate the standing and extend the usefulness of the medical profession.

The committee, in their circular just received, express their opinion, that in no way can physicians better promote the great interests of their profession, which are identical with those of the community at large, than by cultivating good feeling among themselves, and a rigid observance of the rules of medical ethics, as adopted by our State society in 1823, a copy of which should be in the hands of every practitioner.

Dr. Davis read an interesting practical paper on chronic diseases of the digestive organs, for which the thanks of the Society were given, and the communication referred to the committee of publication.

Dr. Sill, from the committee to procure the use of the Assembly-chamber, for the delivery of the President's address, reported that the chamber would be at the disposal of the Society at 4 o'clock, P.M.

Dr. Blatchford presented to the Society for examination, an instrument for removing elongated uvulæ.

Dr. March presented specimens of malformation, diseased bones, etc., for the inspection of the members. One of these was a unique case of malformation of a fœtus, where the heart was external to the body, lying immediately on the sternum, which was perforated for the transmission of the blood-vessels. Another specimen was the larynx, œsophagus, etc., of an adult who was suffocated by an immense mass of meat lodged in the pharynx, which pressed upon the larynx, and completely closed the rimæ-glottidis. A third, was a case of double sex, similar to the one reported by Dr. Barry in the last number of our Journal (see page 57). Dr. Stevens and other members offered some interesting remarks relating to different specimens.

On motion, it was resolved, that the editor of the New-York Journal of Medicine be permitted to publish an abstract of the proceedings of the Society, at its present session, in his periodical.

On motion of Dr. Stevens, it was resolved, that the members of the Society be requested to prepare for reading at the next annual meeting a history of the diseases of their respective counties.

At 4 o'clock, P.M., Feb. 3d, the Society met, pursuant to adjournment, in the Assembly-chamber, when Dr. McCall, the President, delivered a very able address on the subject of mental manifestations, as caused by healthy and diseased physical action. Thanks were given for the same, and a copy requested for publication.

The Society then proceeded to ballot for officers for the ensuing year, when the following gentlemen were elected:—T. W. Blatchford, *President*; Alex. Thompson, *Vice President*; P. Van Buren, *Secretary*; P. Van Olinda, *Treasurer*.

CENSORS: *Southern District*—A. H. Stevens, E. G. Ludlow, Jas. R. Manley; *Eastern District*—Wm. Bay, Jon. Eights, Joel A. Wing; *Western District*—Wm. Taylor, B. Burwell, John Coats; *Middle District*—J. S. Sprague, A. Willard, Daniel Thomas.

Drs. Gilman, (1st Sen. District), Dr. Cash, (2d), Brinsmade, (3d), Corliss, (4th), Crowe, (5th), Davis, (6th), Van Buren, (7th), Burwell, (8th), were appointed committee of correspondence.

The following gentlemen were elected permanent members: Drs. W. Parker, E. F. Grant, Alden March, T. B. Hicks, T. Goodsell, N. Winton, G. W. Bradford, A. S. Sprague.

The following gentlemen were elected honorary members: Seth Hastings, of Oneida, and H. H. Childs, of Pittsfield.

Committee of Publication—Drs. T. R. Beck, J. McNaughten, Joel A. Wing.

The Committee on Prize Questions and Dissertations, same as last year, viz., McNaughten, Beck, Eights, Wendell, Wing, and Blatchford.

Drs. A. H. Stevens, S. H. French, D. Thomas, R. A. Varick, E. Barnes, E. Delafield, D. R. Pearl, S. M. Crawford, were nominated for permanent members.

Drs. P. B. Brooks, E. Bannister, H. Corliss, and John W. Weed, were recommended to the regents for the honorary degree of Doctor of Medicine.

Such is a very brief and, doubtless, imperfect sketch of the proceedings of the Society, during the three days it continued in session. Besides the interesting discussions to which the resolutions gave rise, a special discussion was held on the last day of the meeting on the subject of nervous diseases, Dr. Stevens in the chair, in which Drs. Wing, Blatchford, Davis, Lee, and others participated. We are happy to be able to publish in our present number, some of the communications made to the Society; others, for which we have not space in this, will appear in our next.

We congratulate the profession on the evidence presented by the above proceedings of our State Society, that a new medical era is dawning upon us, and that there are signs on every side too obvious to be mistaken, that the reign of quackery and imposture is drawing to a close, and that true science is to prevail in its stead. Let every county society then be resuscitated; let voluntary associations, in addition, be formed in every county, city, or large town; let every medical practitioner remember that he has a duty himself to perform; and then the repeal of our medical laws will prove the greatest boon ever conferred by the State upon our profession.

The plan of dividing the members of the State Society into sections, after the manner of the British Association, is an admirable one, for which we are indebted to the distinguished delegate from the College of Physicians and Surgeons of this city, Dr. A. H. Stevens. If we are not greatly deceived, results are to grow out of this organization of the most important nature, both as respects the public health, the condition of our public institutions, as well as medical education and ethics. The Albany *Argus*, which may be supposed to represent the opinion of intelligent laymen on this point, remarks as follows: "At length, then, the united voice of the medical profession will be heard on subjects appropriate to their proper duties as conservators of the public health; and we are persuaded that the Legislature will hereafter profit by the information that will be collected in the manner proposed, and that some gross abuses, at which humanity revolts, will be brought to light and corrected."

Monument to the late Samuel Forry, M. D.: *To the Subscribers to the Forry Monument.*—The undersigned, as chairman of a Committee appointed to erect a suitable monument to the memory of the late Editor of this Journal, would beg respectfully to report:

That a monument has been erected over his grave, at Greenwood Cemetery, consisting of a simple shaft, (two feet square at the base), cap and base of the best Italian marble, highly polished, resting upon a plinth of granite, the whole measuring seventeen feet high. The Monument stands near the grave of the late De Witt Clinton, on the most elevated spot in the grounds of the Cemetery, commanding a most beautiful and extensive prospect of Long Island, the Sound, the Atlantic Ocean, the city, harbor and bay of New-York, Staten and Governor's Islands, the Jersey shore, &c., upon the front side of the shaft is the following inscription:

SAMVELI FORRY, M.D.,
MEDICO ERVDITO
ARTE MEDICINÆ PERITO,
DECESSIT NOV. EBORAC.,
VI NON NOVEMB.,
ANNO SACRO M,DCCC,XLIV,
ÆTATIS XXXIII,
AMICI EIVS
HOC MONIMENTVM SACRANT.

On the second side is the following inscription:

BORN AT BERLIN, PA.,
JAN. 23D, 1811,
DIED AT NEW-YORK,
NOV. 8, 1844.

AUTHOR OF
THE CLIMATE OF THE UNITED STATES.

On the third side is the following:

EDITOR OF
THE NEW-YORK JOURNAL MEDICINE
AND THE
COLLATERAL SCIENCES.

The entire work does great credit to the manufacturer, Robert J. Brown, Esq., of this city. The whole sum contributed, $250, has been expended, and the monument paid for. It remains to erect a handsome ornamental iron railing around the spot; the ground having been generously given by the Greenwood Cemetery Association; and for this purpose about one hundred and fifty dollars will be needed. Subscriptions to this object will be received by the undersigned.

All which is respectfully submitted in behalf of the Committee,

CHARLES A. LEE, *Chairman, Forry Monument Committee.*

SCARLATINA.—[We take the liberty of publishing the following letter, though not written for that purpose.—ED.]

Wadsworth, Ohio, Nov. 27th, 1846.

Dear Sir,—There have been several cases of disease in this vicinity recently which have excited much interest, which I take the liberty to detail to you, and to ask you to give me your views in relation to them.

The first was a little boy about four years of age, attacked Nov. 15th, at night, after having been asleep an hour or more, with great distress, headache, and difficulty of breathing and soreness of throat, &c. His feet were put into warm water and in a little time he vomited to the relief of the difficulty of breathing. Some Ipecac. was administered which was immediately rejected and again repeated with the same result. Soon there began to be vomiting and purging, both of which continued until a short time before death. The discharges upwards and downwards were turgid with bile, and they were copious and liquid; much thirst. Within twenty-four hours the skin was covered with a scarlet efflorescence; throat externally swollen; internally, fauces red; much difficulty of swallowing; crampy respiration and pulse rapid. Forty-eight hours after attack, deglutition so difficult that there was nothing swallowed through the night; some delirium; vomiting, purging and eruption continue. Next day the same. In a few hours delirium and then coma and death, seventy-two hours from time of attack.

The treatment so far as I could learn was mucilages, rubefacients and once cupping a few hours before death.

Post-mortem appearances forty hours after death.—Bowels lank; no eruption perceptible on the skin; stomach about half full of yellow bile; mucous coat covered with a few scattered red patches; intestines healthy, except intussusception of small intestines of about two feet invaginated in about six inches of intestine below, so as to fill it completely. The invaginated portion gorged with blood, but not sphacelated or softened. No fæces in intestines above or below, nor any fluid in vicinity above invaginated portion. Heart and lungs healthy; larynx intensely inflamed and much diminished in size; epiglotis tumid, and rimæ glottidis nearly closed; pharynx inflamed, and there was pus all about the upper portion of it and root of tongue; tonsils enlarged and inflamed.

On the evening of the 18th, a daughter, aged six, attacked with symptoms very closely resembling those of the boy, viz., vomiting and purging, great thirst, with redness and soreness of fauces, headache, and in twelve or eighteen hours, a scarlet efflorescence over the surface; vomiting and purging fluid, and tinged of a greenish-yellow colour, and dejections frequent and liquid, having also some portions of tenacious mucus. Next day symptoms all aggravated; respiration hurried and wheezing; thirst urgent; throat swollen externally, and deglutition difficult; tongue red at edges and papillæ elevated, the rest white; skin red and rough (pes anserinæ). Had blue pills and laxative injections, and demulcent drinks and counter-irritation; cupped over stomach, and blister applied, and a few grains of calomel administered. There soon began to be a livid appearance to the lips, suffusion of the eyes, incoherency and convulsions for five or six hours, and death thirty-six hours after the attack.

Post-mortem appearances sixteen hours after death.—Stomach partially filled with a dark-green fluid; one point of redness about the size of a shilling, near the cardiac orifice; softening of the whole mucous membrane of the stomach; bowels healthy, except intussusception of small bowels in five or six different portions, and both upwards and downwards, but not much length to the invaginations; liver healthy; bladder contracted but healthy; no fæces in intestines, but some fluid below invaginations. No leave obtained to examine the throat.

Afternoon of the 18th, another son, less than two years' old, was attacked with vomiting, purging, thirst, sore throat, and in a day or so, a scarlet efflorescence over the surface. Recovered.

Mrs. Agard, the mother, was attacked on the 19th, with chilliness, headache and sore throat, and distress, and on the 20th, at evening, all the symptoms increased with sickness at stomach, and scarlet efflorescence over the surface. Throat externally swollen; salivary secretion much increased; tongue red at the edges, with a red streak through the middle, the rest white. Recovered.

A few days before any of these cases which I have given, two older children, which constituted the whole family, were attacked with milder symptoms of the same kind, from which they recovered without any medicines.

There were seen in the stools of the girl that died two berries and some seeds of the berries of the Solanum Dulcamara or bitter-sweet, and also one Lumbricoides. None of the others eat any of the berries as is known, and it is certain that the mother did not.

The idea was stated that the berries were poisonous, and had caused the death of the two cases I have related, and the sickness of the rest, and certain interested empirics give their sanction to the popular opinion.

Now, are the berries of the Solanum Dulcamara poisonous? And admitting that they are narcotic, were the symptoms I have detailed such as a *narcotic* or *any other poison* would produce?

Do they not resemble Scarlatina as described by Graves in his Clinical Lectures, as it prevailed in 1834, in Dublin and throughout Ireland?

Be so good, at your earliest leisure as to look over the details of the above cases, and give me your opinion upon the above points.

I am respectfully yours, Geo. R. Pardee, M.D.

P. S.—The Solanum Dulcamara above is precisely that of the books. I gave a dog one oz. of berries, and next day two and a quarter oz., and no effect. I gave another small dog one oz. and no effect.

[In reply to the above we stated that the disease was undoubtedly a modified form of malignant Scarlatina, and that the effects could not have resulted, in our opinion, from any known poison; especially from the *Solanum Dulcamara*, which has but very slight narcotic properties, scarcely any acridity, and is given with impunity, in large doses, as an *alterative*, for which only it is employed.—*Ed. N. Y. Jour.*]

Hydatids.—I was called, professionally, August 1st, 1846, to visit Mrs. M———, a lady of twenty-four years of age, of a delicate constitution, who had been married over a year, who informed me she had been flowing for the last twenty-four hours, with some pain and uneasiness in the lumbar region; the discharge did not coagulate and was of a menstrual appearance; she was of the impression that she was pregnant, I advised her to keep her bed, in a few days the discharge was checked. Sept. 5th.—I was again called and found her in a similar situation, the discharge more profuse, with increased pain on the fourth day of the attack. She directed my attention to a tumor in the lower part of the abdomen, which she informed me had made its appearance a few days before in the left iliac region, of the size of the palm of her hand, and that it was increasing rapidly; on examination I found a tumour situated between the umbilicus and pubis of the size of a child's head, the largest half to the left of the median line; from this time to the twenty-third of November, she had increased to the size of a female in the ninth month of gestation, the muscles of the abdomen were very tense, with cough and difficulty of breathing, accompanied with considerable febrile excitement with constant vomiting, to such a degree that she was able to retain but little food, with great prostration; there was a distinct fluctuation in the tumour, the mammæ were but very little if any swollen, with thirst, and less secretion than usual of urine.

On examination per vaginam, I found the uterus carried up, the os uteri lying near the pubis, the neck of the uterus was not materially changed from its unimpregnated state; during the disease, there was more or less discharge of a sanguinous fluid, particularly when vomiting or coughing.

Nov. 22d.—Labour-pains commenced, which continued till the following morning, when, previous to my arrival, there was a sudden discharge of a large quantity of fluid similar to that described above; on examination I found the os uteri dilated to the size of a half dollar, introducing my finger, nothing could be felt, on withdrawing it a clot of blood was discharged, on examining it, was found attached several small Hydatids. The pains increased without any effect, accompanied with some hemorrhage; being well satisfied that the uterus was filled with them, I introduced a probe and broke them up, previously giving an infusion of half an ounce of ergot by enema as her stomach would not retain it, in a short time there was discharged about four quarts of Hydatids, from the size of a pea up to a walnut, containing pure lymph, accompanied by a substance resembling membranes and a placenta; no ovum was found. The treatment was very mild, moved her bowels daily by enema. She became very feeble and very much emaciated, but is now rapidly recovering.

Remarks.—In this disease we found it very difficult to determine its nature, it making its appearance in the left iliac region, and having a distinct fluctuation. The neck of the uterus not changed from its natural state, only being displaced, with thirst and a scanty secretion of urine, led me to believe that it was a dropsy of the left ovary, yet, in forming a diagnosis, I could not reconcile the rapidity of its growth, which is unusual in ovarian dopsy.

Drs. Shepard and Freeman, as well as myself, were of the opinion that she was not pregnant, yet we were at a loss as to its nature, as we had never witnessed a case of this extent. From the sudden discharge of fluid previous to the last examination, I am well satisfied that either there was also a large Hydatid or the fluid was contained within a membrane, as the abdomen immediately became quite lax, and the uterus descended to the umbilicus, previous to the discharge of the Hydatids, and I am of the latter opinion, as the membranes resemble the latter, (which I have preserved) together with a substance approximating a placenta. A. Platt, M.D.

☞ Our thanks are due Dr. Moses of this city, Assistant Surgeon in the United States Army, for the revision of the Article from Dr. Jarvis; which Article we are highly gratified to present to our readers in the present number of the Journal; and it affords us much pleasure to inform them, that through the politeness of Dr J., we shall be able to furnish them from time to time with the rich results of his experience and labors in the war with Mexico.

Black Secretion from the Skin.—*Communicated by* G. L. Andrew, M.D., Laporte, Ind., Feb. 8, 1847. Dear Sir,—I see a notice of "a singular case of black secretion from the skin," in No. XIII. of Braithwaite's Retrospect, coming under the observation of Mr. Teevan. He seems to have been puzzled as to the physiological cause of the disease. I have lately seen a case somewhat similar, which may open the way for the explanation, though I confess my inability to satisfactorily explain it.

Mr. H., æt. about 30, of a bilious-lymphatic temperament, has been for some 18 months constantly afflicted with the symptoms of ague to a greater or less degree,—with occasionally an attack. The powers of life were at times exceedingly low, and the cutaneous circulation was at all times languid to the last degree. After this state of affairs had lasted for some time, there was a blackish hue noticed on the arms and upper part of the chest, which was produced by a substance which exuded by washing and rubbing. In such quantities was this matter secreted sometimes that it would color deeply a large basin of water.

The treatment adopted, and which was successful, consisted of tonics, attention to the improvement of the general health, and flannels next the skin.

Very truly, yours, Geo. L. Andrew, M.D.

Dr. C. A. Lee.

[In the Dublin Quarterly Journal of Med. Sciences for Nov. last, Dr. Purdon has reported a remarkable case of colored secretion from the skin.

The subject was a female, æt. 40, the mother of two children. She attributed the first commencement of her state to a fever with which she was attacked some twenty years since, since that time she has suffered from rheumatism, with which she was almost always confined to the bed, until about five years since, when she was, at the close of one of her usual attacks, seized with anasarca and hydrothorax, which were in a measure relieved by a severe diarrhœa which set in, this was kept in check by various remedies, for some time, when after an aggravated attack, a miliary eruption broke out, followed by a profuse serous discharge, after some time this clear discharge changed to that of a straw-color, and from this to a blue, alternating with yellow-like bile. When the blue discharge is about to appear, she is aware of its advent by a mouldy smell and a prickly sensation which precedes its appearance about 12 hours. No remedies have as yet afforded relief.]

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Pharmacy.—The following communication from our friend M. Delluc, Pharmaceutist, although not intended for the public, contains some facts which are worthy of being made known to the profession generally. We, therefore, take the liberty of giving it publicity through our pages, expressing at the same time our obligation to M. Delluc for this and former favours of a similar kind.—(Ed. *N. Y. Jour. Med.*)

Dear Sir,—Having seen in the last number of your valuable Journal the remarks on Dr. Parola's new method of taking Castor Oil in Tincture, I take the liberty of sending you the same preparation, (which I had prepared some time ago) and would feel obliged by you giving it a trial; as also an emulsion, which we very often dispense in our establishments, and which I believe is not liable to the objection which many medical practitioners may suggest, relative to the exciting effects produced by the alcohol contained in the tincture. The following is the recipe for this emulsion:

℞. Ol. Ricini,
Syr. fruct. Aurant. aa ℥i.
Vitellus ovi, . . No. i.
Aq. flor. Aurant. . ℥i.
♏. ft. emulsio.

This makes a very pleasant emulsion which is readily taken by adults as well as children; I think the yolk of egg preferable to gum Arabic, combining more easily with the oil, and adding to its soothing and laxative properties; the flavour of the syrups may be varied to suit the taste of the patients; Ginger syrup, or Winter-green, is often preferred. We have been asked by some medical gentlemen to prepare a lozenge which should contain Sautonine with some tasteless purgative. We found that two grains of Santonine (which is the dose for a child of two years old) make the lozenge so intensely bitter that no child could be made to take it; we thought, therefore, that Sautonine might be administered with great advantage, by being suspended in our emulsion of Castor Oil, which would have a soothing as well as purgative effect, thereby obviating the use of Jalap and Scammony.

We have also a very active syrup for Ascarides, which is taken very readily by children, and the formula of which I subjoin for publication should you think it sufficiently valuable:

℞. *Extr. Spigelia Maryl. . . . fl. ℥ viij.
Syr. Sennæ compos. (Lond. Ph.) . ℔ij.

Mix whilst hot and evaporate to a proper consistence. Dose, a small teaspoonful, for a child one year old.

I also send you a sample of a new fluid extract, prepared from the Cortex Rad. Granati; it is very powerfully astringent and very active; each ounce represents the active matter of two ounces of the bark, should you, or any of your friends have a case of Tænia on hand, please give it a trial. One tablespoonful every three hours, till three are taken, then followed by two or three ounces of Castor Oil, would be the proper dose for a robust person.

Should you find these few lines worthy of notice, I shall be happy to furnish you the results of my future experiments in concentrating the active principles of the various plants, roots, etc. Yours respectfully,

M. Delluc, 581 Broadway.

Remarkable Case of Ascites.—Doctor Lee,—Agreeably to your request, I send you the short memorandum of the case of Mrs. Hurlburt, which I took from Mrs. H., with the assistance of her son, Rev. W. Hurlburt.

Castleton, July 15, 1841.—Mrs. Hurlburt, a widow lady, in middle walks of life, aged 49 years, had paracentis abdominis performed on her nine years since, for the first time,—since which she has been tapped no less than forty-three times.

The average quantity of water drawn was fifty-five pounds,—the greatest quantity at any one time was seventy-seven pounds.

For the last three or four years, preceding October, 1840, the operation was performed about once every four weeks. As the average was fifty-five lbs. it follows that the whole amount drawn, was two thousand three hundred and sixty-five pounds! being nearly three hundred gallons. It should be added that the water ceased to collect from October, 1840.

I am, sir, very respectfully, your most obedient and humble servant, &c.,
Geneva, Dec. 23, 1846. E. Barnes, M. D.

Amaurosis Caused by Worms.—*Communicated by* Lewis Graves, M. D. J. A., aged 42, commenced complaining in April, 1846, of dizziness in the head on stooping, and sickness at Stomach, poor appetite, which continued through the summer. Sometime in June he began to see objects floating before the eye, with double vision, and in July following lost entirely the sight of the left eye; the pupil slightly dilated. The right eye was constantly affected by objects floating before it, and double vision; by November, he was merely able to discern objects indistinctly, and at no greater distance than ten or twelve feet, when he first applied to Dr. G., he complained of a grinding sensation at the pit of the stomach, nausea, want of appetite, weakness, tongue furred, red at edges, bowels costive, twitchings during sleep, pain in head and eyes, constant in back of head; ℞. Pink and senna, strong decoction, afternoon and evening, followed at bed-time with castor-oil and turpentine aa. ℥ ss. next day but one, saw him, found that he had passed during the night and day, seventy lumbricoid worms, and thinks he passed many more which were not counted. Sight of both eyes perfectly restored; no more floating objects, nor has there been since; prescribed vegetable tonics, he has ever since had good health.

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* The eight ounces of fluid extract of the Spigelia represent the active matter of a *pound* of the root; we often combine it with the fluid extract of Senna when a more active preparation is required.

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Meeting of the Army Board.—A Board for the examination of candidates for appointment in the Medical Staff of the Army, will be convened in this city, on the 15th of this month, (March) and continue in session not less than four weeks. The opportunity which is afforded by the existing war for the study of surgical accidents, as well as the fevers of our country in masses, is one rarely afforded and should induce many to "try their steel" before this Board. We doubt not that many who have profitted by the lectures and cliniques of either school during the past session, would acquit themselves with credit in this examination. An immediate appointment will be made of the first *nine* who pass this Board. Applications must be addressed to the Secretary of War, must state the age and residence of the applicant, and be accompanied by respectable testimonials. These being satisfactory, an invitation is sent to the applicant, to present himself before the Board for examination, where he stands upon his own merits.

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Delegates to the National Medical Convention.—At a late meeting of the Counsellors of the Massachusetts Medical Society, the following members were nominated from the Chair, and elected delegates to the next National Convention in May; viz., Dr. Stephen W. Williams, Deerfield; Dr. Enoch Hale, Boston; Dr. Elisha Huntington, Lowell; Dr. A. L. Pierson, Salem; Dr. Royal Fowler, Stockbridge; Dr. J. V. C. Smith, Boston; Dr. Joseph Sargent, Worcester; Dr. Z. B. Adams, Boston; Dr. Lyman Bartlett, New Bedford; Dr. E. W. Carpenter, Sandwich; Dr. Wm Bridgeman, Springfield; Dr. O. W. Holmes, Boston; and Dr. Geo. C. Shattuck, jr., Boston. Thus the reproach upon the old Bay State, of tardiness in giving in its adhesion to the great national scheme for elevating the profession, can no longer be cast upon us.—*Boston Med. & Surg. Jour. for Feb.* 10, 1847.

At the Annual Meeting of the *Mississippi State Medical Society*, held at Jackson, in January last, the following gentlemen were elected to represent said society in the National Convention to be held in Philadelphia, in May next. Samuel A. Cartwright of Natchez, President; H. Lipscombe, —— Monette, P. D. Ewing, J. S. Copes, Wm. R. Gist, O. L. Dewees, K. P. Alston, G. G. Banks, W. J. Leake, J. Andrews, George Nicholson, G. Keirn, T. J. Catchings, W. Jamison, E. D. Turner, —— Tackett, John B. Sykes, —— Kilpatrick, Wm. Balfour, —— Davis, James Maynard, James Chamberlain, and S. C. Farrar.

At the meeting of the *College of Physicians of Philadelphia*, held December 1, 1846, the following Fellows were appointed delegates to the National Medical Convention, to be held in May, 1847: Drs. T. T. Hewson, Isaac Hays, Samuel Jackson, (late of Northumberland), J. Wilson Moore, Alfred Stille, J. R. Paul, W. Pepper, G. Fox, C. Morris, D. Francis Condie, Jacob Randolph, Robert C. Bridges.

At a meeting of the *Philadelphia Medical Society*, on Saturday evening, November 21st, the following gentlemen were appointed delegates to represent the Society in the National Medical Convention to be held in Philadelphia, in May next: Drs. Bell, Emerson, Parrish, Norris, West, Ashmead, B. H. Coates, Bond, Hays, S. G. Morton, Yardly and Griscom.

The delegates of the *Philadelphia Medical Society*, and of the *College of Physicians*, have been directed, respectively, to make arrangements, in connexion with the delegates that may be appointed by other institutions in the city, for the reception and a suitable place of meeting of the Convention.

The *Medical Faculty of the University of Pennsylvania*, have appointed of their number, Drs. Chapman, Jackson, and Wood, to represent them in the Convention in May next.

The *Vermont Medical Society* has appointed Drs. Charles Hall, C. W. Horton, A. G. Dana, and Dyer Storer, as its delegates to the Convention.

The *Albany Medical College* has appointed the following delegates: Drs. Marsh, J. McNaughten, T. R. Beck and Hun.

The *Medical Society of New Jersey* has appointed, as delegates, Drs. Smith and Pierson, of Essex County, Marsh, of Passaic, Stewart, of Morris, Forman, of Mercer, Parrish, of Burlington, Taylor and Cooper, of Camden, Garrison, of Gloucester, and Howell.

The *District Medical Society of Burlington County* has appointed Drs. Cole, Stratton and Read.

From the *Lancaster County* (*Pa.*) *Medical Society*—Drs. Hames, J. L. Atlee, Kerfoot, Eshleman, Winters, sen., Duffield and Carpenter.

From the *Pennsylvania Medical College.*—Prof. Patterson, Wiltbanks, and W. L. Atlee.

WISCONSIN MEDICAL CONVENTION.—One of the first objects of the profession, after the organization of the territory of Wisconsin into a sovereign state, was to unite their strength to give character to the medical practitioner, by defining the standard of education which qualifies a man for engaging in the high and responsible duties of a surgeon and physician. A meeting was held at the capitol in Madison, on the 12th of January, Dr. Mason C. Darling, of Fond du Lac, in the chair, and Dr. Henry Clark, of Walworth, secretary. On the second day of the session, it was resolved, "That if any member thereof shall neglect to attend meetings of this Society for two years without rendering a satisfactory excuse, his membership may be declared forfeited and his place filled by the election of some other person." Dr. Jno. B. Dousman, of Milwaukee, was chosen President; Dr. L. B. Brainard, of Sheboygan, Vice President; Dr. Chandler B. Chapman, of Madison, Recording Secretary; Dr. B. B. Carey, of Racine, Treasurer; Drs. L. S. Hewett and E. B. Wolcott, of Milwaukee, and Dr. Blanchard, of Racine, Censors; and Dr. Jesse Moore, of Rock, Corresponding Secretary.—*Boston Med. & Surg. Journal.*

PATENT MEDICINE LAW IN MAINE.—A late law in the State of Maine requires that the composition, and the proportion of each article of the composition, of every patent medicine offered for sale, shall be printed on a label and pasted on the bottle, package, &c., containing it, under penalties that would make a common pedlar wince. It is well known, however, that a law never was enacted which a yankee could not evade. This was true in regard to the ninepin law:—a tenth pin was added, and thus the statute became inoperative. A daring fellow, who has a patent medicine much in demand by the downeast people, called at the Chinese Museum in this city, lately, and for two dollars had the composition, proportions, &c. of each article in the compound translated, by Mr. Chafung, into Chinese—and in that language the required labels are printed. He thus complies with the letter of the act—because the law does not define the language of the labels. By the time the legislature is again in session, he will have supplied the market, and will, at his leisure, laugh at the combined wisdom of the representatives of the people.—*Ibid.*

INFLUENCE OF OCCUPATION ON LIFE.—In the fifth Massachusetts Registration Report, several tables are presented to show the average value of life in persons who persue different occupations. From the imperfection in many of the returns of marriages, deaths, &c., it is not unreasonable to suppose that this department of the registration schedule is far from being perfect. Beginning with clergymen, and running through a catalogue of one hundred and thirty-seven different callings—the distinct pursuit by which an individual is supposed by the community to earn his bread—the longest lived men in the State are sculptors. Perhaps, however, as only one of the craft has died since the establishment of registrations, this solitary artist's decease is not a criterion of the longevity they may attain—especially when the fact is recollected that he reached the advanced period of ninety-three years. The next employment conducive to, or rather not incompatible with, a length of days, is that of a midwife—one of whom reached ninety-two. Here, too, was but a single person devoted to that branch of industry, so that no valuable fact is established by this record. In 1846, the average age of gunsmiths and potters, was eighty; and two pnmp and block makers finished their eighty-second year, which is a good argument that that kind of mechanical enterprise is favourable to health. Fourteen clergymen were carried to an aggregate of 897 years, which shows the age of each one to have been 64·07 years. Eight lawyers lived to be fifty-nine—by which it appears that there is nothing essentially injurious to the machinery of organic life in that profession. Twenty-one physicians had allotted them only 47·64 years. There are few or no holidays to this class of men. Professional cares prey upon constitutions operated on by other forces, such as exposures to all the vicissitudes of weather, broken sleep, irregular meals, &c., which individually war against a long life. A furnace man in 1844 had reason to expect that he might live to be 39·71 years old; in 1845, however, he could only calculate on 32; and in 1846, nothing could be more discouraging, since his chance fell down to only 22 years, which is the shortest life in the whole column of 137 trades and professions. Teachers are on the gain in point of longevity, which may probably have been caused by the better systems of ventilation demanded from one season to another by those who are especially interested in the public health. Fourteen teachers, in 1844, lived to be 33·78; in 1845, there was a very perceptible loss, the average of life being but 29·85 for 21 persons. In the third tabular arrangement for 1846, 45·78 years was a surprising gain, illustrating the importance of improvements in the construction of school-houses both for air and exercise. Those styled gentlemen, in the old Puritan Bay State, seem to have spun out the thread of life to a very satisfactory period. Whether it is to be understood that they were simply consumers and did nothing towards producing, is not mentioned. It is nevertheless curious to ascertain, from a reliable source, that a gentleman has a better chance for a good old age here in the variable temperature of New England, than many who conceive themselves more entitled to whatever is desirable, from having eaten the bread of carefulness, and also contributed to the moral and physical elevation of the community. During 1844, these "gentlemen" saw 77·14 years; in 1845, 68·11; and in 1846, ten of them attained 66·20 years. It appears from this report that more carpenters and shoemakers die annually, in Massachusetts, than persons from any other trades. This may in part be caused by the greater number in those professions. In 1844, 76 carpenters died; in 1845, 79; and in 1846, 70. The average of life at that period, was 48·94 years. In corresponding years, 110 shoemakers died the first, 134 the second, and 133 in the last.

In conclusion, it may be remarked, with safety, that there is room for vast improvements in this new idea, in the United States, of registration. When the people are sufficiently convinced of the utility of the undertaking, and the legislature offer a little compensation for the collection of statistical returns from every town and hamlet in the Commonwealth, then the registration will be more complete, will assume more character, and will vie with similar documents in the mother country.—*Ibid.*

GENEVA MEDICAL COLLEGE.—The course of Lectures at Geneva College, closed on the 27th of January, with a public commencement in the Presbyterian church. The following are the names of the Graduating Class, together with the subject of their Theses. The school was never in a more flourishing condition than at the present moment.

J. S. Lawrence,—Fungus Hematodes. Thomas Bradley,—Syphilitic Diseases. T. S. Armstrong,—Variola. E. A. Cone,—Leucorrhœa. W. H.

De Camp,—Fecundation. W. A. Smith,—Arachnitis. F. A. Tracey,—Convulsive Affections of Infants. S. P. Hillman,—Typhoid Fever. B. Goodyear,—Blood-letting. P. Beardsley,—Sanguinaria Canadensis. E. H. Hurd,—Puerperal Fever. C. H. Elliott,—Digestion. J. W. Justin,—Dyspepsia. J. L. Wager,—Pathological Anatomy. T. Dwight,—Law of Organic Life. L. F. Avery,—Fever. D. J. Mallory,—Amaurosis. L. Peck,—Circumstances which modify the action of Remedies. C. K. Thompson,—Uterine Hemorrhage. R. Bartlett,—Nervous Irritation. J. C. Rhodes,—Water as a Remedy. F. Wylie,—Scrofula. E. B. Baker,—Spasmodic Asthma. W. Sawens,—Phthisis Pulmonalis. J. Dunn,—Sense of Vision. D. M. Agard,—Apoplexy. Nelson Mead,—Constipation. M. R. Smith,—Continued Fever. L. Cotner,—Inguinal Hernia. John Ingersoll, Jr.,—Diseases of the Heart. John Roger,—Hydrocele. B. L. Bickerson,—Nervous System. P. S. McArthur,—General Diagnosis. H. Rowe,—The Digestive Apparatus. W. O. Davis,—Ergot. J. Baker,—Masturbation. J. C. Patterson,—Scarlatina. G. N. Woodward,—Fever. S. G. Heuse,—Chronic Gastritis. E. J. Whitcomb,—Vascular Contractility. Wm. Oliver,—Scarlatina. W. B. Crandall,—Congestive Fever. Lewis Graves,—Cold Bathing.

MEDICAL INSTITUTION OF YALE COLLEGE.—The Annual Examination of Candidates in this Institution commenced on Wednesday, the 20th inst. The full Board of Examiners were present, viz.: on the part of the Connecticut Medical Society, Archibald Welsh, M. D., of Wethersfield, *President*, George Sumner, M. D., of Hartford, Josiah G. Beckwith, M. D., of Litchfield, William H. Cogswell, M. D., of Plainfield, Rufus Blakeman, M. D., of Fairfield, and Richard Warner, M. D., of Middletown; and on the part of Yale College, Professors Silliman, Ives, Knight, Beers, Hooker and Bronson.—Twenty-one Candidates, who had attended at least two full courses of lectures, and complied with the other legal requirements, were recommended for the *Degree of Doctor in Medicine*, and received Diplomas from President Woolsey of Yale College; and Three, who had attended one course of lectures, received *Licences* from President Welsh of the Medical Society.

GRADUATES.

Timothy Phelps Beers, Jr., of New Haven,—Uterine Hemorrhage after delivery. Ebenezer Banks Belden, B. A. 1841, Fairfield,—Delirium Tremens. Edwin Bidwell, Manchester,—Croup. William Rufus Blakeman, Fairfield,—Necrosis. David John Hollis Chubbuck, Binghamton, N. Y.,—Scarlatina. Charles Cullen Cone, Westbrook,—Nicotiana Tabacum. Nathaniel Bowen Cooke, B. A., Brown Univ. 1840, Bristol, R. I.,—The contra-indications of Mercury. Thomas Cuddeback, Port Jervis, N. Y.,—Scarlatina. John Deacon, New Orleans, La.,—Tumours of the abdomen. Isaac Shafer Hunt, Newark, N. J.,—Typhus Fever. Graham Lee, New Haven,—Traumatic Hysteria. Frederick Oscar Leffingwell, New Haven,—Aneurism. Samuel Erskine Maynard, Norwich,—Parturition. Alfred Patten Monson, New Haven,—Empiricism. James O'Reilly, New Haven,—The quack and his medicine. Charles Henry Rogers, B. A., 1844, Brooklyn,—Scirrho-Cancer of the breast. Charles Smith Shelton, B. A., 1840, Huntington,—Sympathetic Action. William Edward Sparrow, Mattapoisett, Me.,—Vis Vitæ. John Luman Wakefield, Winsted,—Cynanche Trachealis. William Henry Williams, Clinton,—Pulmonary Hemorrhage. Albert Brownell, Worthington, Colchester,—Intermittent Fever.

LICENTIATES.

Seth Porter Ford, Washington,—Inflammation. Augustus Sammis, Norwalk, B. A. 1844,—Inflammation. John Boardman Trask, Roxbury, Mass.,—Scrofula. The *Annual Address* to the Candidates was given by Rufus Blakeman, M. D., of Fairfield, of the Board of Examiners. Josiah G. Beckwith, M. D., of Litchfield, is appointed to give the Annual Address in 1848, and George Sumner, M. D., of Hartford, his substitute.

Constitution and By-Laws of the New-York Academy of Medicine. —*Constitution.*—Art. 1. This Association shall be called the "New-York Academy of Medicine," and be composed of Resident and Corresponding Fellows.

2. The objects of the Academy shall be:—*First.* The separation of Regular from Irregular Practitioners. *Second.* The association of the Profession Proper for purposes of mutual recognition and fellowship. *Third.* The promotion of the character, interests, and honor of the fraternity, by maintaining the union and harmony of the regular profession of the city and its vicinity, and aiming to elevate the standard of Medical Education. *Fourth.* The cultivation and advancement of the science, by our united exertions for mutual improvement, and our contributions to Medical Literature.

3. The Resident Fellows shall be Regular Practitioners of Medicine or Surgery in the City of New-York or its vicinity; shall be proposed by a Fellow of the Academy to the Committee on Admissions, which shall satisfy itself of the regular standing of the candidate, by credentials or otherwise, and upon its recommendation he may be admitted by vote of the Academy at a regular meeting. A residence of three years in this city or vicinity shall be necessary to eligibility in the Fellowship of the Academy.

4. No Proprietor or Vender of any patent or secret remedy or medicine, nor any Empirical nor Irregular Practitioner, shall either be admitted to, or retained in, the Fellowship of this Academy.

5. Corresponding Fellows may be elected on the nomination of the Committee on Admissions, which shall vouch for their being duly qualified practitioners; but the votes of three-fourths of the Fellows present at a regular meeting shall be necessary for such election. The number of Corresponding Fellows shall be limited to one hundred.

6. The Officers of this Academy shall be, a President, four Vice-Presidents, a Recording Secretary, two Corresponding Secretaries, designated for Domestic and Foreign Correspondence; a Treasurer, and a Librarian; who shall be elected annually by ballot at the regular meeting in January. They shall severally perform the duties indicated by the title of their respective offices.

7. The President shall appoint, immediately after his election, the following Standing Committees, each of which shall consist of five Resident Fellows:—*First.* A Committee on Admissions. *Second.* A Committee on Finance. *Third.* A Committee on Medical Ethics. *Fourth.* A Committee on Publication. *Fifth.* A Council of Appeal.

8. Alterations of this Constitution shall not be made except at a meeting subsequent to that at which such alteration shall have been proposed, in writing.

By-Laws.—Sec. 1. The Academy shall hold a regular meeting on the first Wednesday of each and every month, due notice of the same being given by the Secretary, through the Post Office, to every resident Fellow. Twenty-one Fellows shall be necessary to form a quorum.

2. The business of each meeting shall be in the following order, viz:—

Calling the Roll of resident Fellows. Report of Committee on Admissions, and elections thereon. Nomination of Resident and Corresponding Fellows. Reports of the several Standing Committes, in order. Report of the Corresponding Secretaries. Report of the Librarian. Report of the Treasurer. Reading of Papers, and discussions thereon. Reception of Professional or Scientific Intelligence. Unfinished business. New business.

3. The Committee on Admissions shall take the names of all candidates for Resident and Corresponding Fellowship who may be nominated at each regular meeting, and after due inquiry, shall report such as may be found worthy to the Academy, which may thereupon elect them. In the case of Resident Fellows, the vote of a majority of the Fellows present shall suffice; but in the case of Corresponding Fellows, the affirmative vote of three-fourths of the Fellows present shall be required, as provided in the fifth article of the Constitution.

4. The Committee on Finance shall assess the amount necessary for inci-

dental expenses upon the Resident Fellows by a pro rata tax, which shall not, however, exceed the sum of three dollars per annum, to each individual. The report of this Committee shall be subject to the revision of the Academy at a regular meeting.

5. The Committee on Publication shall be charged with superintending the printing of such Orations, Memoirs, or Papers, as may be ordered to be published, so that they may be issued on a uniform paper and page, under the title of the "Transactions of the New-York Academy of Medicine."

6. The Committee on Medical Ethics shall hear and decide all complaints of breach of etiquette, or Violation of Medical Ethics, on the part of any Fellow of the Academy. It may report its action to the Academy when in its discretion it may be expedient, or it may transfer jurisdiction to the Academy in any particular case, by calling a special meeting for the purpose. It shall likewise decide all questions of Medical Ethics submitted to it by the Academy.

7. The Council of Appeal shall notify to appear before it any Fellow of the Academy who shall be charged in writing with violating any of the provisions of the Constitution, a copy of such charge having been previously furnished him; his accuser being also cited to appear, the Council shall proceed to take testimony and hear the defence, reserving its decision to be reported to the Academy at the next regular meeting, when its action may be affirmed by a majority of the Fellows present, but the vote of three-fourths of those present shall be required to reverse the decision of the Council of Appeal.

8. The Librarian shall have charge of all Books, Pamphlets, Manuscripts, Anatomical or Pathological Specimens, Apparatus, Instruments, Medals, Coins, or Scientific Property of whatever kind, which may be presented to the Academy. He shall keep a Catalogue, and designate every article with the name of the Donor. The Finance Committee shall provide a proper location for the Library and Museum of the Academy, at the place which may be selected for its regular meetings.

9. A Nominating Committee shall be appointed by ballot and a plurality vote, at the regular meeting next preceeding each annual election, consisting of five Resident Fellows, whose duty shall be to present the names of three candidates for every office to the annual meeting, by which one shall be chosen out of the three thus nominated.

10. The names of the Resident Fellows of the Academy shall be published once in each year in at least four of the newspapers of this city, certified by the President and Secretary.

11. An Anniversary Orator shall be provided for by the election of some Resident Fellow as Orator, at the regular meeting in February. The time and place for the delivery of such Oration shall be fixed by the Academy.

12. A Copy of every Oration, Memoir, or Medical Paper, read before the Academy, shall be kept in its Archives by the Librarian, unless otherwise ordered. But no such Oration or Paper shall be published as having been delivered or read before the Academy, unless authorized by a vote of the majority at a regular meeting.

13. The prompt payment of the Annual Tax for Incidental Expenses, after its amount has been confirmed by vote of the Academy, shall be considered a point of honor.

14. No Fellow shall speak more than once on the same subject, while any other desires to be heard; nor shall any speaker occupy more than fifteen minutes, unless by a vote of the meeting.

15. The President shall appoint all Committees, unless otherwise ordered by the meeting.

16. All Standing Committees shall be required to keep minutes of their proceedings; and the reading of these minutes shall be considered as their report.

17. These By-Laws may be changed by a majority of the Fellows present at the next regular meeting after such change shall have been proposed in

writing; and by a unanimous vote these By-Laws may be temporarily suspended.

The Subscribers having been duly constituted Fellows of the Society of Medicine of New York, of which the Constitution and By-laws are hereunto annexed, do hereby pledge their honor to conform themselves thereto, and to all such other Rules and Regulations as may hereafter be adopted conformably therewith, so long as they shall severally continue to be Fellows of said Academy. In testimony whereof they have affixed their respective Signatures.

Officers and Committees of the New York Academy of Medicine, for the year 1847.—President, John Stearns, M.D.; Vice Presidents, Francis U. Johnston, M.D., Thomas Cock, M.D., J. B. Beck, M.D., John W. Francis, M.D.; Recording Secretary, F. Campbell Stewart, M.D.; Domestic Corresponding Secretary, William C. Roberts, M.D.; Foreign Corresponding Secretary, Benjamin Drake, M.D.; Treasurer, Robert Watts, Jun., M.D.; Librarian, Thomas M. Markoe, M.D. *Standing Committees.—Committee on Admissions*, John W. Francis, M.D., James R. Manley, M.D., James R. Wood, M.D., Benjamin Drake, M.D., W. Parker, M.D.; *Committee on Medical Ethics*, Alex. H. Stevens, M.D., Edward Delafield, M D., F. Campbell Stewart, M.D., Gurdon Buck, M.D., J. B. Beck, M.D.; Committee on Finance, D. M. Reese, M.D., Galen Carter, M.D., J. C. Bliss, M.D., James O. Pond, M.D., J. Kearney Rodgers, M.D.; *Committee on Publication*, Joseph M. Smith, M.D., Gunning S. Bedford, M.D., William C. Roberts, M D., H. D. Bulkley, M.D., Edward Beadle, M.D.; *Council of Appeal*, Valentine Mott, M.D., Thomas Cock, M.D., Isaac Wood, M.D., Benjamin Ogden, M. D., William Rockwell, M.D.

PROCEEDINGS OF THE NEW-YORK COLLEGE OF PHARMACY.—At a stated meeting of the Board of Trustees of the College of Pharmacy of the city of New-York, held September 3d, 1846, John Milhau, first Vice President, addressed the Board as follows:

Gentlemen,—I would be doing injustice to my feelings were I not to beg your indulgence for a few remarks commemorative of the valuable services rendered to this College by our late venerated President, whom it has always been our delight to associate with in promoting its best interests.

In his death every one of us has to deplore the loss of a friend ever ready to impart most cheerfully the useful knowledge which diligent study and well-matured experience had secured to a mind of superior cast.

His loss to us is irretrievable, and will be felt most deeply not only by his immediate friends, but likewise by the profession and the community at large.

The scrupulous care bestowed by him in the selection of pure articles for the dispensing department of his business enabled him but too often to detect most culpable adulterations of drugs and chemicals. Many are the instances in which sophisticated articles have been returned to the owners with such remarks from our late worthy President as would teach them he was too competent and vigilant a sentinel ever to allow their nefarious speculations to succeed in this great drug mart.

His zeal and industry in the advancement of all that could possibly benefit the science of Pharmacy, would have done credit to one much younger, but above all his example in the prosecution of his professional duties should be held up as worthy of imitation: ever conscious of the importance of personal attendance to the faithful discharge of the tedious and but ill-requited and little-honoured duties of a practical Pharmaceutist, he allowed himself no respite.

In the long course of my life I have no where known an individual who united in a more eminent degree all the qualifications requisite to form an apothecary; he was honest, virtuous, intelligent and indefatigably industrious; he inspired confidence in all who approached him. The poor as well as the rich were equally grateful to him; the first, because they were the objects of the kindest benevolence; and the tatter, that the gentleman, the scholar, and the skilful manipulator should condescend to attend to the minutiæ of so delicate, and at the same time so tedious a calling.

He has left a numerous and interesting family to mourn his loss. One of his sons has already done himself credit as a distinguished graduate of this institution, and promises to sustain the fair name he has inherited.

It will now be requisite, gentlemen, that we should all unite in our endeavours to diminish, as much as possible the immense loss we have sustained in the demise of so good, so virtuous, and so useful a man as the late Constantine Adamson.

Mr. George D. Coggeshall then made some appropriate remarks on the character of the deceased, after which he offered the following resolutions, which were unanimously adopted:

Resolved, That in the death of our late President, Constantine Adamson, a great public calamity has been sustained, which has fallen with especial weight upon this College, and that we, so lately his associates, have been stricken with deep sorrow at his removal, as by the loss of one of our first members, eleven years our President, always conspicuous for his faithfulness, devoted zeal and efficiency, and yet more because of the profound respect we entertained for his counsel, the admiration, and warm personal regard in which we held his high integrity and his estimable social qualities.

Resolved, That his loss, great as it is to us, must be to his family a much deeper and more painful affliction; that we offer our sympathy, not merely in form and compliance with custom, but as sincere mourners with them, under a blow which, from their privilege of closer connexion, it is their greater affliction to feel.

Resolved, That a committee of three be appointed to collect materials for, and prepare a memorial of his life and services, to be read before the College at its stated meeting in November.

Resolved, That a copy of these resolutions, duly signed by the officers of the meeting, be presented by the committe above mentioned, to the family of Mr. Adamson.

It was, on motion,

Resolved, That a copy of the chairman's address be also presented to the family.—*Amer. Jour. Phar. for Jan.*, 1847.

BULLETIN OF MEDICAL SCIENCES & SELECT MEDICAL LIBRARY—Since the publication of our last number we have learned that these valuable journals have been discontinued. We regret to hear this, for among our numerous exchanges none have been more welcomely received, or looked for more earnestly at their expected time. The object of the latter has been in a measure accomplished. For ten long years the Select Medical Library has been disseminated far and wide over the length and breadth of our country; and with what effect, let the numerous physicians who have reaped the rich fruits of Dr. Bell's labours answer. The former has always come to us laden with choice fruit, culled by the clear and discriminating mind of its talented and gifted editor; and while we regret the privation we, as well as the profession, will suffer by the cessation of these journals, we rejoice to hear that his labours in the literature of the profession are not to cease; but that he promises, still, from time to time, with the assistance of his gentlemanly publishers, to appear before the profession in the joint capacity of author and editor—long may he be prospered in the fulfilment of this promise.

2.

Foreign Medical Intelligence.

SURGERY.

On the Pathological Alteration of Arteries, by Ligature and Torsion.—By Dr. Porta.—[Dr. Porta has for the last nine years been performing experiments on animals, to find out the alterations induced upon the arterial system by the ligature. He has performed more than 600 experiments on 270 animals most of them dogs, and has placed in the museum many of the preparations, as proofs of authenticity.

He used, in his operations, those ligatures mostly employed in practice, as catgut, silk, prepared and crude, flax and hempen threads, and hair; he found no material difference between the crude and prepared silk, or between those made of flax and hemp. He observes:]

Among the substances applicable to the ligature of arteries, catgut is doubtless the most strong and homogeneous. A series of eighty experiments proves that even of small diameter it has sufficient strength to compress an artery, divide its proper coats, and maintain them in mutual contact until obliteration or division is perfect; but it differs from the other ligatures, as it does not always divide the internal wall at the moment when the knot is formed, but becoming lax by a process of softening, it sometimes allows the artery to reopen. This, however, does not interfere with the success of the operation, when the relaxation is gradual and the internal plug is formed in time.

Still, from the experiments instituted, and partly related above, it appears that catgut, a day, or even some hours after its application excites adhesive inflammation in the cellular sheath of the artery, and becomes covered by a stratum of plastic lymph, olivary in form, which surrounds and buries it. This lymph at first becomes modelled into a soft, gelatinous, adherent tissue, which gradually becomes atrophied, and generally leaves a simple cellular web; or a ligamentous substance more close and opaque, designed to isolate the ligature and the artery; or more rarely suppurative inflammation is set up in the seat of ligature, and a circumscribed abscess is formed when the ligature remains, until it is thrown off. The catgut relaxes, softens, dissolves, and becomes confounded with the surrounding cellular tissue; or the artery upon which it rested being consumed, it becomes dry and stiff, and lays bare in the layers of the cellular tissue; or becomes concealed in the peculiar tissue of the cord remaining between the truncated extremities of the vessel; or confined in a cyst, or coating of the plastic lymph which first formed around it. The new cyst is at first simple and cellular, but afterwards it acquires consistence, and offers in its walls an external layer, strong and coriaceous, and a species of epithelium, or internal rosy, soft mucous layer, containing the ligature and some secreted matter. This cyst is generally small, resembling a grain of rice or millet, and when thus small it is ordinarily attached and closely adherent to the ligature, following all its irregularities, thus partly assisting in the process of solution. But sometimes, by exorbitant exhalation, it becomes enlarged to the size of a pigeon's egg, or more, then resembling a true encysted tumor. In its last changes, if not discharged by the fistula remaining after the operation, it withers and remains undisturbed among the tissues where it lies, or terminates by being with its cyst completely absorbed.

When compared with catgut, silk ligatures produced much more irritation, and excited suppuration more frequently, although in many cases simple adhesive inflammation alone was produced. Like the catgut, they are first covered with plastic lymp, then connected with the cord remaining between the two extremities of the artery, or they lie bare between the layers of the common cellular tissue, or become encysted. If not thrown off, the silk may remain inert during life; yet in some cases the author says he has succeeded in demonstrating that after a long time it becomes softened, and may be absorbed. In one hundred and twenty experiments the ligature was discovered in one hundred and one cases, in nineteen (a sixth) it disappeared; in some of them it may have escaped observation, but as in most of those discovered the silk had undergone a gradual change, and great care was taken in the examination, the possibility of the absorption of silk cannot be denied.

[With regard to the effects of the ligature, suppuration more frequently occurs in man than in animals. The ligatures generally escape either from the original wound, or from a secondary opening; but, where both ends of the ligature have been cut, and union has taken place by the first intention, they have been known never to come away.

On the effect of the ligature Dr. Porta remarks:]

The circular ligature applied upon an artery determines the following mechanical alterations:—Division of the proper coats, strangulation of the cellular coat, and their approximation internally at each side of the ligature with the formation of a clot. In this condition the artery, in consequence of the operation, is subject to two kinds of inflammation, the adhesive and the suppurative. The experiments just related demonstrate the first kind, or obliteration by adhesion.

The process of coalition of the tied artery has four periods:—The first, external arteritis and organization of the *oliva cellulare;* (this implies a quantity of coagulable lymp exuded, covering the ligature, and taking the shape of an olive); the second, closure of the vessel; the third, isolation of the closed extremities, and detachment of the ligature from the intermediate cord; the fourth, assimilation of all these parts.......

The rapidity of the organization of lymph is extraordinary, beyond belief. At the close of the second to the third day the *oliva* is changed into a gelatinous tissue; and generally in less than a week the new cellular sheath is perfectly formed, and presents a most beautiful and beneficial provision of nature for the obliteration of the artery, and protection against the blood which threatens its future destruction.

The *trombo*, or internal coagulum, is among the first phenomena of the ligature of an artery, and arises, as it is known, from the stoppage of the blood between the ligature and the first lateral vessels. This purely physical phenomenon is general in tied arteries, but not so constant as to be observed in all cases. Of one hundred and forty experiments with the circular ligature the clot was not formed in twenty-nine, sometimes on neither side, and more frequently only on the side next the heart, or *vice versâ*, and this without neighboring lateral vessels: several times the clot has not formed, and the artery has remained permanently empty, notwithstanding an interval of some *millimeters* from these vessels. When the clot forms it may take place in a few hours, or in the first day: or the blood may not be completely coagulated on the third or fourth day. The larger a vessel is, the nearer the heart, subordinate to the action of this organ, and rich in lateral branches, the longer is the clot in forming; it is weaker, or is altogether wanting. It is also erroneous to suppose that the clot is always formed in proportion to the capacity of the tied trunk, and to the distance of the first lateral branches; not unfrequently the clot is excessive, and passes beyond small and large lateral emissaries one or two *millimeters* in diameter; while in other cases it remains short, or slender and thread-like, and only fills a part of the channel. When largest, it scarcely forms a plug, or completely fills the closed end of the artery, exactly uniting its walls......Once formed, the clot remains a long time unabsorbed, prolongs the process of assimilation, and it appears that it sometimes becomes permanent, traces being discovered several years after an operation; but when the artery goes through its last changes, the coagulum becomes white, hard, firm, almost calcareous, attenuated, forms a part of the ligamentous walls of the vessel, and then entirely disappears.

[Dr. Porta does not consider, as Travers and Jones did, that the division of all the coats was necessary for the success of the operation. The obliteration of the vessel then is, either by coalition and simultaneous assimilation of all the three coats at the spot tied, or, by a slow and insensible contraction, gradually converting the arterial tube into an impervious cord. But, it is to be observed, that most frequently the arterial tube is divided by inflammation, if it is not done so previously by the mechanical action of the ligature.

The *Torsion of arteries* has been long practised; it was known to Galen and the Arabians. Dr. P. uses a small pair of dissecting forceps, with their internal surfaces scored and exactly joining their whole length. The reviewer observes:]

The method is only applicable to wounded or divided arteries; and either simple torsion, or torsion after isolation of the vessel, may be employed. Simple torsion is adapted to small arteries of the fourth and fifth order; they are seized with small forceps, the instrument closed and turned in the fingers, three, four, or six times, always in the same direction, and then the vessel is abandoned. In this way six, eight, or ten arteries on the surface of a large wound may be stopped in a very few moments. It may be necessary to repeat the torsion two or three times. The author frequently adopts this plan after amputations upon the radial, ulnar, tibial and intercostal arteries. Previous isolation, and from seven to ten turns of the forceps, are necessary for the larger arteries. The errors to avoid in the operation are the seizing one wall of the vessel only, or not taking a sufficiently firm hold, seizing part of the surrounding textures with the artery, and twisting too little, so that the proper coats are not ruptured, or too much so that the cellular coat is also broken.

The author made sixty experiments on animals, and many observations on man, to determine the anatomical effects of torsion, and the subsequent alterations in the artery. They are closely analogous to those produced by ligature, viz., circular laceration, and sometimes introflexion of the proper coats, strangulation of the cellular coat, and an internal clot, as mechanical effects; and adhesion or suppurative inflammation, as vital.

Several interesting cases, taken from the author's clinical practice, are given to illustrate the practical value of this method in the human subject. In the first, it was successfully employed in the brachial after amputation. No hemorrhage ensued, but the man died in three days from pneumonia; vessel closed by clot and adhesion. Some results in the second case, in a man who died four days after torsion of the tibial; and in the third, who died nine days after torsion of the brachial. In the fourth case, torsion was applied to the femoral after amputation of the thigh; the patient died of pulmonary abscess seventeen days afterwards: no hemorrhage occurred, and the artery was found perfectly closed. The same result occurred in a case in which torsion was applied to the popliteal after amputation; the patient died in ten days also, from pulmonary abscess; and the popliteal was also closed in the sixth case, the patient dying of apoplexy fourteen days after the operation. In the seventh case torsion was applied to the femoral after amputation; the patient died in twenty-one days of phthisis, and the artery was found exactly in the same condition as if a ligature had been applied. The eighth and ninth cases are instances of the successful application of torsion to the arteries of the leg and forearm after amputation. In the tenth case torsion was applied to the femoral; but as bleeding did not cease, a ligature was applied. A ligature was also necessary in the following case, in which torsion was used and repeated upon the femoral unsuccessfully. In the twelfth case the leg of a boy was amputated below the knee, the popliteal was divided above its bifurcation, and twisted six times upon itself. When the compression was removed the artery was seen to pulsate violently, turn twice round, and throw a jet of blood from its centre. It was again twisted three times, and the bleeding ceased. The wound cicatrized without any other accident. The other cases are three of successful application and terminaton of the femoral, and two to the popliteal after amputations. A case is also given in which a large varicocele had produced neuralgia and atrophy of the testis, and a cluster of the veins was removed of the length of two centimeters. Hæmorrhage to a large amount followed from the mouths of five or six large veins in the cord. Each of them was seized and twisted five or six times, and a common bandage applied. No hæmorrhage followed, and the cure was complete in a month."

The concluding paragraphs of this section, [continues the Reviewer], are important, and we accordingly extract them.

" Since I introduced torsion into this school, I have almost exclusively practised it for the obliteration of wounded arteries. From the beginning I kept an exact register to the number of four hundred; then I neglected to record the daily cases in hospital and private practice, in which torsion was applied, except in cases of amputation. It was applied to the occipitals, temporals, maxillary, superior thyroids, some branches of the subclavian, the thoracic, external pudic, spermatic, &c., and to the digitals, so that there is no artery of the fourth or fifth order upon the surface of the human body that has not been repeatedly twisted, after accidental wounds or cutting operations, and the result of so much practice during nine years has been fortunate beyond every expectation. I well remember in some cases to have been obliged to repeat the twisting two or three times; but I do not remember that the ligature was ever necessary on account of the torsion having failed. Thus I have ceased to employ the ligature for wounded arteries of moderate size, and now employ torsion only; as to the advantages of simplicity and celerity it unites others, as it may be done without assistance, and does not leave foreign bodies in the wound.

With regard to the large arteries of the extremities, I have already applied torsion in sixty-five cases after amputations and disarticulations, principally performed in the clinique, and some in private practice. Although the operation in these cases has not succeeded so fully and securely as in the preceding, yet in the majority it has answered. For the arteries of the forearm and leg, radial, ulnar, tibial, interosseal,—torsion, either simple or after separation of the end of the artery, has constantly succeeded, except in two cases; in one of which the anterior tibial, and in the other, posterior tibial, gave way, and the ligature was required. On the brachial it has always succeeded; and of twenty-three operations on the femoral and popliteal it has failed in four cases, two already mentioned, the twisted portion having given way, and ligature being necessary. I know that with some surgeons of my acquaintance laceration and hæmorrhage have been more frequent, but that may depend upon error in method or management. Fricke has enjoyed very good fortune, having only one case of hæmorrhage in thirteen torsions of the brachial, femoral, popliteal, and tibial arteries. He, however, has no bounds to his enthusiasm, and prefers the new operation in all cases, and twists with success even ossified arteries, which are not suscepticle of torsion. On the other hand, the cases of Delpech and Textor are inconclusive, and of no more weight against this operation than the first unfortunate trials of the Hunterian operation in France by Desault and Deschamps."

The author goes on to argue that ill success is more frequently to be attributed to incapacity in the operator than to the condition of the vessel. If not twisted enough, the current of blood will reopen it; if too much, the coats give way. He continues:

" The results of practical surgery correspond with, and are even more favourable than the results of zootomy. In my series of experiments upon the carotids, subclavians, and femorals of dogs, sheep, goats, and horses, torsion in general succeeded; but in eleven cases out of sixty secondary hæmorrhage occurred, requiring either a repetition of the torsion, or the ligature, and destroyed more than one animal. Experiments on brutes, then, do not give a secure criterion to argue the same results in man; because here torsion of the mouths of vessels upon the surface of the wound is a ready and simple proceeding, much more likely to be successful than torsion after exposing, isolating, and dividing the large arteries in animals."

The conclusions are, that in wounds of arteries only, can torsion take the place of the ligature; and as it is perfectly safe and secure when practised on the smaller arteries, it ought to be performed when those arteries are divided. The question with regard to the larger arteries is not yet settled; but it would appear that although torsion answers in the majority of cases, still the ligature affords greater security against secondary hæmorrhage.—*Braithwaite's Retrospect, from British & Foreign Medical Review.*

Aneurism by Compression.—On this subject we notice the accidental discovery, by a patient of Dr. Harrison, of the application of a number of clamps (such as used by joiners and cabinet-makers, to secure their glued wood-work), along the course of the artery, proving it not to be necessary completely to arrest the pulsation in the tumor; but by causing a lessened current of blood through it, produce coagulation and a contraction of the sac. (Mr. Wilde.)

Dr. Bellingham applies two compressing instruments upon separate parts of the limb, one tightened, the other not; and by thus alternating the pressure, producing the same effect as if constant compression were maintained at one point, the patient being enabled to bear it for a much longer period than other instruments.—*Ibid.*

Tabular Arrangement of all the Cases of Femoral and Popliteal Aneurism which have been treated by pressure on the Femoral Arteries in Great Britain and Ireland.

No.	Date.	Surgeon.	Locality.	Description of Aneurism.	Age of Patient.	Result.
1	1820	Mr. Todd	Dublin	Popliteal	30	Fem. Art. tied.
2	"	"	"	"	27	"
3	1825	"	"	"	36	Cured.
4	1824	Mr. Duggan	"	Femoral	33	"
5	1826	Mr. Cusack	"	Popliteal	"	Fem. Art. tied.
6	1843	"	"	"	55	Cured.
7	1844	"	"	"	26	"
8	1846	"	"	"	33	"
9	1830	Sir P. Crampton	"	Femoral	36	"
10	1842	Mr. Hutton	"	Popliteal	30	"
11	1843	Dr. Bellingham	"	"	32	"
12	1844	"	"	Femoral	35	"
13	1846	"	"	Popliteal	40	Doubtful.
14	1843	Mr. Liston	London	Femoral	30	Cured.
15	1844	"	"	"	53	"
16	1843	Dr. Harrison	Dublin	Popliteal	29	"
17	1844	Mr. Kirby	"	"	28	"
18	"	Mr. Allen	Haslar Hosp.	"	32	"
19	"	Mr. Greatrex	London	"	27	"
20	"	Mr. Porter	Dublin	"	29	"
21	1845	"	"	"	"	"
22	1844	Mr. Jolley	Torbay	"	28	"
23	1843	Mr. Harrison	Bristol	"	42	Fem. Art. tied.
24	1845	Mr. Dartnell	Chatham	"	38	Cured.
25	1846	Mr. Mackern	Litherland	Femoral	30	"
26	1845	Mr. Storks	London	Popliteal	32	"
27	1846	"	"	"	24	"
28	1845	Mr. O'Farrell	Dublin	"	32	"
29	1846	"	"	"	37	"

Thus 29 cases of aneurism—6 femoral and 23 popliteal—have been treated by pressure upon the artery leading to the sac; in 4 the femoral artery was tied, chiefly from want of confidence in pressure, on the part of either surgeon or patient, and in 25 instances this mode of treatment was successful. Mr. Todd's three cases, Sir Philip Crampton's case, Mr. Duggan's case, Mr. Cusack's case in 1826, and also that of Dr. Molloy and Mr. O'Farrell's two cases, have not been before introduced into any of the notices or tables of this operation which have appeared in the periodicals.

In ten instances, local pressure on the aneurismal tumor by means of pads and bandages was used, in addition to the pressure by the instrument. An examination of the published cases will show how irregularly the pressure was applied; and it is quite apparent that its removal at a particular time, even for a few minutes, and allowing the flow of blood through the sac again to take place, will undo all that had been before effected. It is, moreover, very possible, that in many instances the pressure has been continued far longer than was necessary.—*Dublin Quarterly Journal.*

Treatment of Ganglions, or adventitious Cysts on the Tendons about the Wrist or Foot. By F. C. Skey, Esq., F. R. S.

A puncture with the point of a small lancet is a less painful and more certain remedy than a blow. The puncture may be sufficiently large only to allow the contents to be pressed through. A pad of lint, bound down with adhesive plaster firmly applied, will almost invariably destroy the cavity in twenty-four hours.

A case occurred in the early part of the summer, which may serve to remind us that even these cutaneous cysts will not bear rough treatment. The cyst, which was rather unusually large, occupied the back of the wrist in a youth of 18. I punctured it several times, but it returned. I then passed through it a very fine thread. I was, unfortunately, absent from the hospital on the day of his next visit, and the thread remained for a few days beyond the usual period. Inflammation followed, of a severe kind, and the youth became an inmate of the hospital for some weeks, where, having recovered from the attack of inflammation, he returned to the out-patient room with his original malady.—*Medical Gazette.*

Varicose Veins,—Having marked the veins to be cured with ink, apply a small caustic, of five parts quick lime, and four parts potassa, mixed up with spts. wine, (Vienna paste,) over each projecting vein. When in the horizontal position, insulate each place of application of the caustic with a circle of plaster three or four thicknesses, the internal space being not more than one-quarter or one-third of an inch in diameter. Remove the caustic in half an hour, and dress in the usual way, applying a bandage. From six to twelve applied at one time will be sufficient. (Mr. Skey.)—*Braithwaite's Retrospect.*

Straw Splints for Fractures.—At a recent meeting of the Surgical Society of Ireland, Mr. Tuffnell exhibited a form of splint which he had been in the habit of using for some years, and which he believed had first been invented by Baron Larrey. It is made by filling a linen bag of the size of the splint required, with unbroken wheat straw, that used in the country for thatching being the best. The straw must be cut off at the length to fit the limb, and the open end of the bag sewn up. The splint thus made combines the double advantage of being both splint and pad in one, and possesses the following advantage over the wooden or whalebone splints commonly in use. When lotions are used to subdue the inflammation in a recent fracture, the apparatus need not be removed from the limb, as evaporation takes place as readily through the straw as if the limb was lying unconfined. No padding being used, the hard lumps formed by tow or wool that has been wetted and allowed to dry, and which cause such pain and inconvenience to the patient, are avoided; and if undue pressure is sustained by any projecting process of bone, by inserting the point of the finger, and rolling the straws one upon the other, a hollow is at once formed for the part. In fractures of the upper arm, Mr. Tuffnell said he had, in using the wooden splints and pads, found great inconvenience from the difficulty of keeping the four angles in contact, especially at night, and in muscular arms, the edge of one splint rolling over the other, and at once displacing the whole apparatus; whilst the straw splints, when bound on the limb, so embraced it as to keep up one uniform pressure on all sides, and in fractures of the forearm acted most beneficially by pressing the muscles into the interosseous space more and more as the fillets or bandages were tightened. These, he said, were advantages he had found to result from the common use of the splints; but what he had to adduce most in their favour was the power they gave to the military surgeon and country practitioner of forming at once, in almost every situation in which he could be placed, an efficient contrivance for the treatment of all ordinary fractures; whilst for hospital practice their cheapness was of no inconsiderable advantage: and, in compound fractures, by directing the nurse to take out the soiled straw, wash, and re-fit the case with fresh, at each dressing the surgeon was enabled, at the very least expense, to have a clean apparatus, and thus avoid the necessity of keeping a source of effluvia near the patient, at a period when his recovery and well-being so mainly depend upon pure ventilation and fresh air. In fractures of the forearm, by substituting a fillet and buckle for the ordinary tape or bandage, the patient is enabled to tighten or relax the pressure of the splint according to his own sensations of uneasiness or comfort, and the lightness and regulated pressure make them much less irksome than the old-fashioned wooden splint.

Mr. M'Coy approved very highly of the apparatus; and Dr. Jacob said it appeared to him to be a most admirable contrivance. At the first glance, one might be inclined to think it not sufficiently strong; but, on testing the apparatus it was found a most powerful one: and, as Mr. Tuffnell had remarked, the facility of moving the straw, so as to accommodate the splint to the inequalities of the limb, was a very marked advantage. He looked on Mr. Tuffnell's suggestions as most valuable for securing an extemporaneous mode of coaptation, more particularly to gentlemen who are to practise in the country, where there is generally so much difficulty in persons accommodating themselves in urgent cases, sudden as fractures usually are. He had seen an old hat furnish a very efficient splint in the small fractures of children. Then there was the cover of an old book, but even in obtaining this there is often a good deal of difficulty when the inmates of the house a man is called to, are not of literary habits. A capital extemporaneous splint, which Dr. Jacob had seen used in the fractures of children, was the fresh bark of a tree taken off while the sap is rising. It fits admirably, just like a paste-board soaked in water. He had seen a case managed in this way by a common bone-setter, and the whole thing turned out in a way that would do credit to any of our metropolitan surgeons.—*Dublin Med. Press.*

MEDICAL PATHOLOGY AND PRACTICAL MEDICINE.

Contributions to the Pathological Anatomy of Typhus Fever. By Dr. Vierordt, of Carlsruhe.—The author of this communication has obtained the following results from the examination of 51 cases of typhus fever:

In the Cranium.—In 19 cases the dura mater was found to be pale in 8; universally or partially injected in 11; the arachnoid was in the majority (26) of instances also considerably injected; almost never pale (once only in 37 cases); generally containing a moderate quantity of serous effusion. The brain itself had, with few exceptions, a natural consistence; the medullary substance was pale in 16 out of 41 cases; in 7 it exhibited slight bloody puncta upon incision; the white and gray substances were in some instances more distinctly separated in colour than in others; the lateral ventricles, in 42 cases, contained no serum 12 times; one drachm only in 2 cases, from two to six drachms in 15; the serum was generally clear and pale. The venous tissue (pia mater?) was in general moderately congested; at the base of the brain no effusion was found in 2 out of 29 cases, from half an ounce to an ounce in 14, from two to five ounces in 12.

The Œsophagus.—In 36 cases in which this part was examined, more or less loss of substance was discovered in 21; the mucous membrane was generally exsanguine, but in a few instances was speckled or entirely suffused with capillary injection. The loss of substance exhibited itself in two forms: 1. That of isolated superficial erosions, of a size varying from that of a millet seed to that of a pea; these did not appear to have any tendency to attack the deeper structures, neither were the tissues surrounding them materially engorged; these erosions were usually found in those who died from the tenth to the fourteenth day of the fever. 2. As ulcers, which destroyed the cellular tissue of the epiglottis in a uniform manner. These ulcers commenced with a more or less considerable tumefaction of the mucous membrane of the epiglottis (caused by formation of the typhus product?), the borders of which were converted into a friable whitish-yellow mass, which, when removed, displayed an irregular ulceration of from two to three lines long, half a line broad, and one line deep, the bottom of which consisted of pale or slightly-red granulations. This ulceration limited itself to one border of the epiglottis, and seldom extended to the mucous membrane of the œsophagus, unless it attacked the subjacent cartilage at the same time. The author observed this form of ulceration in 11 out of 32 cases.

The Larynx was healthy in 24 out of 42 cases; its mucous membrane being pale, or partially injected; in 4 cases slight erosions were found upon the vocal cords, and in 14 more decided ulcerations were seen, but these were in all cases confined to the posterior wall of the larynx. In some few instances the ulcer extended to the cartilages.

Lungs.—These organs were never observed to be perfectly healthy. The principal alterations discovered in them were, a wrinkling and dark-red colour of the bronchial membrane (bronchial catarrh), with œdemic and hypostatic congestion; carnification (7 times), and hepatization (9 times). In two cases gangrene of the lungs existed. The adhesions of the pleuræ were mostly of an older date. Effusion into the pleura occurred 30 times; of these the fluid was clear in 6, reddish coloured in 23, and purulent in 1. The quantity was generally less than a pint.

The Heart.—The pericardium itself was healthy in all of 50 cases examined, it was entirely free from effusion 3 times, but in general contained more or less of a transparent reddish-yellow serum. The substance of the heart, and the endocardium, did not present any peculiarities.

Condition of the Blood.—In 49 cases in which the blood was noticed, the heart and large vessels were found empty twice; in 23 cases they contained blood of a watery, and in 18 of a gelatinous dark-red character. Coagula of various appearance were also seen; in 9 cases they were soft, and of a dark-red colour, in 10 cases they were more firm, and in 15 they were exceedingly compact and voluminous; in 13 cases these coagula were absent.

The Spleen was notably enlarged in the earlier periods of the disease, its borders more obtuse, its capsule distended, its tissue either firm or more or less friable. Later in the disease, the swelling of the spleen always disappeared, its capsule becoming flaccid, and its tissue recovering its resistance. In 6 cases out of 51 the organ contained metastatic [?] abscesses.

Liver.—This organ presented very considerable alterations. Its volume seldom varied, but its consistence exhibited every grade from induration to complete softening. Its colour was generally yellowish-brown; in some cases congested, in others anæmic. The gall-bladder was found empty in only 2 cases in 30, in the remaining instances it contained, for the most part, about an ounce of limpid bile.

Stomach.—The changes discovered in the stomach were very unimportant, such as partial injection, ecchymosis, &c., and these appearances were confined to the larger curvature, and were evidently connected with the lesions of the spleen.

Intestinal Canal.—The serous membrane of the upper portion of the small intestines was in general pale, while that of the lower portion, especially in the neighbourhood of the glands, was either injected or covered with large patches of a purple colour. The lower part of the small intestines were sunk into the pelvis, and its serous coat exhibited morbid appearances proportionate to those which existed in its mucous membrane. The *mesenteric glands* presented a series of alterations, consisting partly of simple congestion and tumefaction, partly in the infiltration with a peculiar matter, which was found in various degrees of alteration. This tumefaction was most prominent in the glands situate nearest the cæcum. The *mucous membrane* of the small intestines was but slightly injected, excepting as we approached the cæcum, where the Peyerian glands were rendered unusually distinct by a ring of injected capillaries. This appearance was more decided in the earlier than in the later periods of the fever. The mucous membrane covering the infiltrated Peyerian glands was in general of a uniformly grayish-red colour, that of the solitary glands being more inclined to yellow; the infiltration was more decided in proportion to the propinquity of the glands to the cæcum. Those glands which were seated in the superior portion of the small intestines were less distinctly marked, and the mucous membrane surrounding them, when held up to the light, exhibited dark spots. Those of the solitary glands which were similarly infiltrated, were of the size of a lentil. The patches of the diseased Peyerian glands were oval, of two or three lines in length, and so placed that their long diameter corresponded with that of the intestine; this, however, was not so constant an appearance, nor so characteristic as is stated by Rokitansky. The number of patches affected was upon the average 6 or 7, of the solitary follicles about 30. Upon these glands were seen a greater or less number of yellowish points; these, together with the super-imposed mucous membrane, transformed themselves into a yellowish-brown scab, which, when it was removed, exhibited an *ulcer*. The above-mentioned scab falls off sooner in the solitary glands than in the Peyerian patches, in both of which, however, we have observed that the ulceration proceeds from the centre towards the circumference. The ulcers of the solitary glands are mostly of the size of a lentil, those of the Peyerian are of variable size, round, or oval, and irregular. The nearer these ulcers are to the cæcum the larger and more closely crowded they become, and the greater is their inclination to coalesce. The borders of the ulcers are deep in proportion to the amount of the previous infiltration; in the commencement the edges are well defined, but in the progress of the disease they become attenuated and undermined; they are also dark coloured for the space of a line or two. When the ulceration commences to cicatrize its base becomes pale, and the edges approach the base and unite with it. The part then appears even, and is covered by a thin, smooth pellicle. The spot in which this new structure exists is transparent when the intestine is held to the light, an appearance which has long been considered as indicative of the existence of former typhoid ulceration. *Perforation* of the intestines was found in nearly one-seventh of the cases examined, the perforation always occupied the summit of the ulcer, and allowed the passage of an ordinary sized sound; these were in all cases the results of ulceration of the Peyerian glands, and never of the solitary.

Cæcum and large Intestines.—Morbid appearances were not unfrequently found in this portion of the intestinal canal, but not with the same constancy as in the smaller bowels. They consisted, for the most part, of injection with slight tumefaction of the muciparous glands, small erosions, and typhus infiltration.

The author remarks that the above catalogue of lesions of the various organs of the body in typhus stand in a certain definite relation one to the other. The alteration in the blood crasis takes the precedence of all the other changes, and has an undeniable association with them, as well as with the duration of the disease. There can be no doubt, also, that the chemical constitution of the blood varies much in the different stages of the disease, indeed this is demonstrated by its different physical attributes.

The author deduces the following conclusions from the preceding observations:

1. In the origin of the disease, so long as the intestinal glands are found in the state of infiltration, the constitution of the blood most nearly approaches to that of health, because the slight increase of fibrin is not fully developed. 2. In the succeeding stages of the disease, that in which ulceration ensues, the blood becomes richer in fibrin. 3. The engorgement of the spleen, one of the most characteristic signs of typhus, is manifestly connected with the infibrinization of the blood; the less fibrin there is, as a general rule, the larger is the spleen. This depends upon the fact that an augmentation in the function of the spleen induces a greater venosity of the blood, which is, in fact, synonymous with a diminution of the fibrin [the author regards the spleen as an organ intended to defibrinize the blood]. 4. The different conditions of the intestinal glands above mentioned, likewise exhibit a close connexion with the state of the blood as regards its proportion of fibrin, as well as with the anatomical changes in other organs, especially of the spleen and mesenteric glands. In the first stage of the intestinal affection the blood is found to be more deficient in fibrin, and the spleen more engorged than in the latter periods of the disease. Further investigations demonstrate that a more or less rapid series of connected alterations likewise mutually affect the Peyerian and solitary follicles.—(Schwezer. Zeitsch., iii. 3. Schmidt's Jahr. 1846, 3, Heft iii.)—*Ranking's Abstract.*

On the Treatment of Pneumonia.—By Dr. ANTHONY TODD THOMPSON. [The writer's object in the following remarks is to examine the comparative advantages of treating pneumonia with bleeding, and with antimony, with or without mercury. In regard to the former, while he acknowledges its utility when employed with moderation and at an early period of the disease, he deprecates profuse and repeated bleedings as positively hurtful. He denies that it is ever beneficial when solidification of the lung has taken place, but on the contrary, asserts that it only quickens the circulation, and hastens the disorganizing process. He declares his conviction that the repeated use of the lancet may generally be rendered unnecessary by the judicious employment of tartar emetic. His practice is thus developed:]

My practice, as soon as I have fully satisfied myself of the existence of the disease, and if the attack has not run on to the second stage, is to order one bleeding to the amount of sixteen or twenty ounces; to follow this immediately with three or four grains of calomel and one grain of opium, with the view of preventing that nervous irritability which often succeeds the use of the lancet, and of sustaining the beneficial impression made on the system by blood-letting. In two hours afterwards I give one grain of potassio-tartrate of antimony, in a fluidounce and a half of emulsion of bitter almonds, and repeat this dose every third or fourth hour, until a decided diminution of inflammatory action takes place—that is, until the crepitation has nearly disappeared, and the sputa are no longer rusty and tenacious. The intervals between the doses of the tartar emetic are then extended to six hours, and afterwards to eight hours, and so continued until convalescence is confirmed. I prefer the bitter almond emulsion on account of its containing hydrocyanic acid, which has a sedative quality, and a more decided influence in quieting the nervous system, and abating the cough, than small doses of opium. When the pneumonia is uncomplicated, this plan, with the occasional aid of some mild aperient, has, in my hands, seldom failed to carry the case to a successful termination. When the attack has passed the first stage, when dulness on percussion indicates hepatization, then the object of the second indication—namely, to excite the capillaries and prevent further depositions—requires attention; and, in order to fulfil this indication, I order four or five grains of mercury with chalk, or one grain of calomel, to be given in each interval of the administration of the tartar emetic. In the statistical table, twenty-three out of the thirty-eight cases were treated with mercurials in addition to the tartar emetic, because, in hospital practice, the patients are seldom brought in until the disease has progressed, and the solid effusion, if I may employ such a term, has taken place. But in the remaining fifteen cases no mercurial was employed, the tartar emetic was alone trusted to, and it did not disappoint my anticipations; but in no instance was its employment commenced until after the abstraction of blood, either by the lancet or by cupping. I have never carried the mercurial action to ptyalism; but it is requisite to procure the usual symptoms of its decided impression on the habit, by producing slight tenderness of the gums. In ordinary cases I have seldom had occasion to order blisters; but, from the nature of hospital practice, they are demanded, and they were employed in sixteen of the cases in the statistical table. Such are the advantages of moderate doses of tartar emetic in the treatment of pneumonia. In the same manner as when larger doses are administered, vomiting almost always occurs after the first and the second dose of the remedy; but on the third dose the tolerance is established, and even when the dose is increased, neither nausea nor vomiting afterwards takes place.

[In reference to the *modus operandi* of tartar emetic, the author further remarks:]

If I may be permitted to state a hypothetical opinion, I should venture to offer my view of what has been termed the tolerance of the habit against the well-known influence of tartar emetic, when administered in moderately large doses. It has been supposed by Rasori and others, that the inflammatory state of the system in pneumonia is the cause of this tolerance, and that this would cease if the remedy were continued after every trace of general inflammation had disappeared. I am, however, of opinion, that the tolerance does not depend on the state of the habit, but solely on the topical influence of the tartar emetic on the mucous membrane; and upon its influence, also, on that membrane operating as a counter-irritant; and to this its beneficial effect in subduing inflammation is to be attributed. When a grain or more of tartar emetic is swallowed, a portion is carried into the circulation, and, acting on the nervous centres, it causes vomiting; but a portion also acts topically on the mucous membrane, and sets up subacute inflammatory action there. The second dose also causes vomiting, because the inflammation, although extended, yet is not sufficient to prevent absorption: but when the third dose is given, the absorption no longer takes place, and consequently no vomiting is induced. It is a well-established fact, that an inflamed surface is incompatible with absorption; and to this, in a great measure, are we to attribute the accumulation of serum in serous cavities in dropsy. If my views be admitted, I would further state, that the determination of blood to so extended a surface as that of the mucous membrane is, in my opinion, sufficient to relieve the congestion in the lungs; and that it is, in truth, the cause of the benefit which follows the employment of the tartar emetic. Such is my opinion of the rationale of the action of tartar emetic in pneumonia; but on this part of my subject it is not my intention to insist, my chief object being to demonstrate that this powerful therapeutical agent can perform all that can be expected from its administration in much smaller doses than Rasori and his followers have employed; that such doses incur no risk, seldom bringing on diarrhœa, whilst hypercatharsis has followed the administration in large doses; and that in such doses it sets aside the necessity of large and repeated abstractions of blood, and consequently cures the disease without that injurious impression on the habit which has been frequently seen to follow copious blood-letting. Another advantage obtained by this mode of practice in pneumonia is the gradual advancement of the convalescence, and the restoration of the patient to health and vigour without the aid of tonics. By gradually letting down the action of the tartar emetic, the stomach recovers its tone, and the assimilating function rapidly restores any waste which the necessary treatment of the disease may have occasioned.—*Ranking's Abstract, from the Lancet.*

Observations on the Diagnosis of Bright's Disease, and its Relation to Albuminous Urine. By G. O. Rees, M. D., F. R. S.—[The intention of the author's present communication is stated to be, in the first place, "to direct attention to those symptoms which lead to the detection of Bright's disease, when the more common effects of that disease are either not prominently marked, or are altogether absent; and, secondly, to notice certain albuminous conditions of the urine, which must be distinguished from that form more especially connected with deranged kidney."

The attention of Dr. Bright was, as is well known, first directed to the subject of his discovery in its relation with anasarca, but Dr. Rees is anxious to impress upon the reader a fact which is frequently overlooked, viz., that the kidney may be subjected to all the gradations of the granular condition, without the supervention of that symptom. It is important, therefore, he observes, that those other symptoms which equally indicate the peculiar disease of the kidney, should be familiar to the practitioner. His remarks upon this point are to the following effect:]

Now it not unfrequently happens that patients present themselves in whom the leucophlegmatic or anæmic aspect is strongly marked. They complain, perhaps, of having taken cold, and feel pain and dizziness of the head, with shooting pains in the loins and limbs. To these general symptoms, so often met with in ordinary colds and influenza, we do not find superadded the excitement of pulse, or heat of skin, noticed in such affections; on the contrary, the skin is often cool though dry, and this circumstance, if it be present in connection with *nausea* and *vomiting* as a prominent symptom, should be sufficient to direct attention to the kidney, and may probably lead us to elicit, on further inquiry, a train of symptoms more or less confirmatory of the opinion that the kidney is in a diseased condition.

The additional evidence we meet with consists generally in the presence of the following symptoms: puffiness of the eyelids, either noticeable at the time of examination, or which may have been remarked by the patient during the first hour or two after rising from bed, but which disappears as the day advances. The urine will be described as clear, but passed at short intervals, and the patient will remember having been frequently obliged *to rise from bed to micturate.*

This latter set of symptoms should at once lead us to examine the urine, and we shall generally find, in such cases, that albumen may be detected in considerable quantities, and the progress of the case afterwards prove that morbus Brightii is present, possibly in an aggravated form.

[The above set of symptoms are given by the author as descriptive of an intermediate case as regards diagnosis. He proceeds to mention other less common symptoms which may lead to the suspicion of the existence of diseased kidney. For instance, inquiry may afford us the history of a long and severe salivation, supervening upon the cautious and moderate use of mercury.]

"The excessive action of small doses of mercury," remarks Dr. Rees, "thus often becomes a valuable guide for the detection of albuminuria, though it is a painful and injurious result for the patient, and one which no practitioner familiar with the disease would willingly bring about.

"There is a severe form of cerebral disease which occurs in connexion with the excretion of albumen with the urine, showing some peculiarities of a marked character, and to which the attention of practitioners was especially called by Dr. Addison, in 'Guy's Hospital Reports' for April, 1839. This form of brain affection is characterized especially by the anæmic aspect of the patient, by a quiet pulse, and frequently only partial coma. If there be any stertor, it is of a peculiar kind, and characterized by a low hissing sound. These diseases are frequently attended with convulsive attacks, occurring at intervals. Paralysis is not necessarily present, and anasarca is generally absent. This kind of case has been much overlooked, at least as connected with disease of the kidney."

[The author here appends a case in illustration of the above form of cerebral affections. It is that of a man who was admitted in a semi-comatose state, but capable of being partially aroused. He lay on his back, and vomited frequently. Motion and sensation of the left side are impaired; tongue loaded; eyes staring and vacant; pulse 76; lungs healthy; heart's action somewhat excessive; liver enlarged; bowels constipated; urine scanty, high coloured, coagulated by heat and nitric acid. After some days' treatment the patient recovered sufficiently to give an account of himself, and related a history such as is constantly received from persons labouring under morbus Brightii. The author now proceeds to the second part of his subject, and describes various forms of urine containing albumen, noticing, especially, that which is characteristic of morbus Brightii. He assumes that in a given specimen of urine, the presence of albumen has been satisfactorily established, avoiding the consideration of the various sources of fallacy which appertain to each test. He states that urine may contain albumen, owing to the presence of pus, blood, serum of the blood, and to a small extent of semen]

The presence of pus, which may be ascertained by the microscope, may be owing to an excretion either from the bladder, ureter, or kidneys, and urine which is albuminous from its presence is therefore in no way characteristic of granular kidney. It is not uncommon to find urine highly albuminous in cases of diseased bladder, and to find that it disappears as the deposit of pus decreases, and ultimately to find the urine free from albumen. This occurs only when the bladder alone is affected; for if the kidney be the subject of congestive or granular disease, we shall still observe the urine to be albuminous after the deposit of pus has disappeared; and it is by attention to this point that we are often able to determine that diseased kidney exists in addition to the more obvious disease of the bladder.

Urine often contains albumen, owing to the presence of blood. It is then either of a bright-red colour, or like dark porter. Both these kinds of bloody urine are occasionally observed in morbus Brightii, and chiefly in its early stages, but they are not necessarily characteristic of it.

Serous urine is not to be confounded with that which contains blood; it is free from hæmatosine, and the blood-corpuscles are seen only in very small numbers. The albumen is derived from the serum of the blood which passes from the kidney, to the almost total exclusion of corpuscles and fibrin.

When serous urine has been passed for a length of time, say for weeks or months, and treatment fails to remove the coagulability, we may conclude on the presence of kidney disease.

[The probability of a cure being effected in a severe case, or of its inevitably fatal termination, is a subject on which much difference of opinion exists; which difference the author thinks is to be attributed to the uncertainty or absence of signs by which we can determine upon the particular stage of the disease which is present at the time of examination; but it is, he observes, clearly proved by clinical observation, that the primary or congestive stage of the disease, accompanied by albuminous urine, may exist for a very considerable time without being followed by "granulation," and the patient may make a more or less perfect recovery under appropriate treatment.]—
Ranking's Abstract, from Med. Gazette, July, 1846.

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Nocturnal Incontinence of Urine.—There is no infirmity, the treatment of which is so much influenced by individual peculiarities of constitution, as this. In some case tonics succeed, while in others, presenting to all appearance quite similar conditions, it is necessary to have reccurse to stimulants of the muscular fibre, such as the ergot of rye, and nux vomica; blistering in the latter, cold bathing in the former. Finally, there is a class of cases (which cannot *à priori* be distinguished from others) in which the incontinence can be properly treated only by medicines which appear to act specially upon the bladder, and what is very remarkable, amongst these agents some are evidently sedative, others diuretic, &c. This would induce us to believe that incontinence, though regarded generally as a sign of debility of the bladder, consists sometimes, and this more frequently than is commonly imagined, in an excessive degree of nervous and muscular susceptibility of this reservoir. Success has more than once followed the use of sedatives, camphor, digitalis, nitrate potash, benzoic acid, &c., where tonics and stimulants, which at first appeared to be rationally indicated, have failed.*

Dr. Morand has long been in the habit of using belladonna internally, in the nocturnal incontinence of urine in children, and with very satisfactory results. It is, however, in the incontinence from debility, only, that this remedy is of use. Its mode of action he is not able to explain; he gives it in increasing doses, which must be continued sometimes for two, three, or four months in succession; and administers it in pills containing each one centigramme ($\frac{3}{5}$ of a grain) of the extract, beginning with one pill, night and morning, for children between four and six years of age. If no effect be produced at the end of a week, he orders a third pill daily at noon; and, after fourteen days, a fourth, if necessary. With children between eight and fifteen years he begins with three pills, increasing the number as above. If signs of narcotism supervene, the medicine must, of course, be for a time suspended.†

Dr. Berenguier has observed that in his neighbourhood, in the department of Tarn, incontinence of urine is often caused by an obstinate, intractable form of intermittent fever. The children brought to him for treatment were aged between seven and fourteen years. They were anæmic and debilitated. The remedies he found most successful were copaiba, laudanum, and protoxide of iron, made into pills, in the proportion of three parts by weight of the former to six of the latter. Of this mass, one pill, weighing from two to three grains, was taken at each meal; and after two or three days an additional one, until the patient came to take ten daily. He found with Trousseau, that iron, particularly in the case of children, deranges the stomach less when taken after than before meals. Along with these *pillulæ balsamica*, an infusion of the *Folia Juglandis* was ordered as a common drink.‡—*Battersby's Report* in *Dublin Quarterly Journal Med. Sc.*, May, 1846.

Treatment of Diabetes.—Glucosuria.—Diet. Strickly forbid all farinaceous substances, as those into which starch in any way enters. Gluten bread is of great value; it satisfies the cravings of the appetite. Animal food, with eggs, milk, butter, and cheese, are proper. Also the following vegetables: spinage, endive, lettuce, sorrel, asparagus, haricots verts, cabbage of all kinds, along with fat pork or salt bacon; cresses with oil, and hard-boiled eggs. Fresh gluten, with butter, and cheese grated upon it, is an excellent dish. For dessert, allow olives, almonds, filberts, and walnuts; occasionally, and in small quantities, allow apples, pears, cherries, currants, gooseberries, strawberries, raisins, and pine-apples. *Drinks:* The French wines, Bourgogne and Bordeaux, about a pint in the twenty-four hours; they are astringent; sometimes the quantity is to be increased, but the least approach to inebriety is injurious. N. B. Some patients are made worse with wine. Beer is injurious. Coffee is good, and should be taken without sugar, or the quantity of sugar should be very small. Lemonade and drinks of this class are injurious. *Clothing:* Protect the body from sudden chills, by clothing it in flannel. *Exercise* should be carefully regulated; the patient should engage in those exercises in which he takes pleasure; but fatigue is to be avoided. Baths are not of much use; occasionally a tepid bath may do good; swimming in the sea has been found very useful.

Medical Treatment.—Carbonate of ammonia, 77 grains; rum, 310; water, 1550 grains. One-third to be taken half an hour before each meal; or give it as a bolus (eight grains), with treacle, from two to ten to be taken every night.

Give Vichy water. The alkaline bicarbonates, particularly soda, are very useful.

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* Journal de Médecine, par Trousseau, Novembre, 1845.

† Journal für Kinderkrankheiten, December, 1845.

‡ Journal für Kinderkrankheiten, Dec., 1845.

Dover's Powder and Opiates.—The former is very useful; ten grains at bed-time. Crude opium and morphia often disorder the stomach.

Theriaca divina, ʒss. to ʒi., every night: a drachm contains one grain of opium.

Chalybeates and Tonics.—When there is decided pallor of skin, resembling chlorosis, give tonic bitters with iron. The pulverised iron, or iron reduced by hydrogen, is the best form of chalybeate.

Evacuants.—Commence the treatment by giving an emetic and afterwards a purgative, to clear away anything injurious in the primæ viæ. Evacuants are of no use afterwards, except to combat certain symptoms.

Lime water, calcined magnesia, alkalies, nitric, phosphoric, and sulphuric acids, alum, tannin, and other astringents, are of little if any use.

Bleeding.—General bleeding is always injurious. Leeches or cupping to different parts, as the stomach or anus (as symptoms indicate), will be found useful, viz., where there is epigastric tenderness or suppressed hæmorrhoids.

The *chief reliance* must be placed on dietetic and hygienic means. (M. Bouchardat.)—*Braithwaite's Retrospect.*

Treatment of Irritability of the Stomach.—In irritability of the stomach, with the deposit of earthy phosphates, arising from derangement of the functions of the spinal cord, and evinced by emaciated countenance, burning, gnawing pain in scrob. cordis, and heavy pain across the loins, tongue clean and red, pulse quick and sharp, skin dry and imperspirable, with vomiting after meals; try strychnia, as in the following formula:—Strychnia gr. j., acidi nitrici dil. ʒi., aquæ ℥xij., solve, at sumat æger, fiat ℥j. ter in die, and rub the scrob. with a liniment of cotton oil; milk dietary, consisting of eighteen ounces of bread, one ounce of butter, and two pints of milk daily. The medicine to be taken fifteen minutes after each meal. The strychnia acts particularly upon the spinal marrow; and it is supposed that when alkaline urine is secreted, independently of the character of the ingesta, there is always some lesion of this part. (Dr. Bird.)

Unfermented bread is said to be useful where there is habitual headache, acidity of stomach, flatulence, eructations, sinking at the pit of the stomach, and pain after meals; in fact, in confirmed indigestion, and to all who are subject to gout and gravel.—*Ibid.*

Whooping Cough.—Purgation with calomel; if febrile symptoms, calomel and antimony; an occasional emetic, and small and repeated doses of carbonate of potassa, or the following formula: Potassæ carb. ʒj.; coccus cacti, gr. x; aq. fervent. q. s. The dose according to age; for an infant, a teaspoonful thrice daily. (Dr. Allnatt).

Dr. Wachtl, of Vienna, recommends the ammoniated tincture of cochineal.

In the first stage, mild antiphlogistics, daily emetics, and strict confinement to the house, except in summer months. In the latter stages give the following:—Tincture of cantharides, tinct. of opium, comp. aa. ℥ss.; tinct. cinch. co. ℥vss. A teaspoonful to be taken three times a-day in a little boiling water; the dose to be increased if no strangury is produced. Be careful, however, at all times, not to give opium if it can be avoided. (Drs. Graves and M'Gregor).—*Ibid.*

On the Results of Drinking.—By W. Ormerod, Esq.—Of all diseases of internal organs produced by drinking, the granular liver seems to have attracted most attention; perhaps justly; but there is no doubt, that of all organic diseases, the two most to be feared in intemperate persons with recent surgical injuries, are the granular kidney, and slight, but general emphysema, with a dilated, but not always much diseased heart; and in persons past the middle of life, dying rapidly in hospitals after operations and surgical injuries, combined with much loss of blood, these two affections of the urinary and respiratory organs are very far from uncommon.

The three chief affections destroying patients after operations and injuries,—namely, the general habit produced by drinking; secondly, organic disease of the lungs and kidneys, especially emphysema in the former, and granular disease in the latter; and, thirdly, tubercle,—act very differently, and at different periods. During the early period, and often for weeks after operations, patients laboring under tubercular disease do well; and it is often only at the absolute return to health, rather than during the recovery of the patient from the operation itself, that the effects of tubercle begin to show themselves. Organic disease produced by drunkenness, and habitual drunkenness, act differently; the organic disease presses heavily at every period, and may destroy life early or late; but the mere habits of the drunkard show themselves chiefly at a very early period. The patient who nearly sinks from his unsound organs within the first few days, often lags on for weeks and months in danger; but the man who has simple delirium tremens is taken ill directly, and often dies; but if he recovers from his delirium, he generally gets well from the operation, and sometimes quickly.—*Lancet.*

Treatment of Scrofula.—Iodide of iron in syrup, four grs. in twenty-four hours, continued not longer than a fortnight or three weeks at a time, then give aperients, and resume the iodine. The hydriodate of potash may be given more freely. Chloride of barium is very useful in cases of tallow-like complexions, pale tongue, and languid circulation, with irritability of the mucous surfaces. Make a solution of one gr. to ℥j. distilled water, and ten drops of tinct. gent. c., then take half oz. twice a day, and increase the dose if necessary to three grains daily.

Hydrochlorate of lime, ʒj. to ʒxx. aq. dist., and give a teaspoonful in milk two or three times a day. The dose may be increased to two teaspoonfuls. It, as well as the alkalies and burnt sponge, is of doubtful value.

Cod liver oil is useful by improving digestion and nutrition, rather than by the specific value of the iodine or bromine it may contain. (Mr. Philips.)

In scrofulous abscesses, white swelling, chronic eczema, goitre, ulcerated ganglia, herpes, lichen, ulcerated lupus, maculæ, ophthalmia (chronic) complicated with ulcerating keratitis, have received much benefit by treatment with the new triple compound of chlorine, iodine, and mercury, "Iodhydrargirite de chlorure mercureux." (M. Rochard.)—*Braithwaite's Retrospect.*

Differential Diagnosis of Hypertrophy of the Brain, and Chronic Hydrocephalus.—M. Mauthnier (Diseases of the Brain and Spinal Marrow in Children) states the differences in the above diseases at great length. These differences are exhibited in the following tabular form by his reviewer.

Hypertrophy of the Brain.	*Chronic Hydrocephalus.*
1. The posterior part of the skull first presents an unnatural prominence	1. The forehead is the first part to present an unnatural prominence; the altered direction of the eyes, and the great width of the sutures, are also characteristic.
2. Children lie horizontally, or throw the head back.	2. Children lie on the belly, with the head lower than the body, and buried in the pillow.
3. Face puffy, eyes inexpressive or staring, mouth half open.	3. Countenance etiolated, with an expression of premature old age.
4. Functional disturbance comes on gradually—not before the period of dentition or weaning, and consists, at first, in affection of the respiratory apparatus.	4. Functional disturbance begins early, and involves the cerebrum from the beginning.
5. Patient fat, and leuco-phlegmatic.	5. Patient ill-nourished, subject to rickets and tabes.

British and Foreign Med. Rev., April, 1846, p. 389.

Deglutition excited by dashing Cold Water on the Face.—[The following suggestion by Mr. Simpson, of Stamford, founded upon the invaluable principles of the excito-motory system, is worthy of more general application in cases in which the power of voluntary deglutition is lost. The suggestion is well illustrated in the subjoined case.]

A poor man, who had attempted suicide, was sinking from the effects of loss of blood; his pulse was imperceptible, and the action of the heart could scarcely be felt. It being desirable to administer stimulants, his mouth was filled with spirits and water, but the patient was unconscious, and therefore did not swallow. Cold water was dashed upon his face, for the purpose of making him swallow by exciting reflex action, when the contents of the mouth were instantly gulped down.—*Ranking's Abstract*, *from Lancet*, Aug. 1846.

Preservative against Scars in Varioloid.—M. Thielman speaks in the highest terms of the following topical application, and says that, by its use, large, confluent and inflamed pustules of the face and eye-lids, have promptly dried up, without leaving any traces:

℞. Bichloride of mercury, gr. j.
Distilled water, ℥ vj.
Laudanum of Sydenham, ʒ j.

M. S. A.—To be applied once a day by the means of compresses.—*Gazette Médicale*, *of Paris*.

Case of Rupture of the Bladder, with Recovery. By W. Chaldecott, Esq.—The records of surgery exhibit so few instances of recovery after rupture of the urinary bladder, that probably the details of the following case may not be unacceptable, affording as they do encouragement to both surgeon and patient, to hope under circumstances that have generally forbidden any other than the worst anticipations.

At twelve o'clock on the night of Tuesday, the 7th of April, Mr. John Philps, a wine-merchant in Dorking, a healthy and temperate man, about fifty, having passed two or three hours at a concert, ran across the street to empty his distended bladder, and, the night being dark, he did not see a newly-erected post, with the top of which the lower part of his abdomen came in violent contact. He states that he fell and with great difficulty reached his home, which was about a hundred yards distant.

Mr. Chaldecott saw him about half an hour after the accident. He was faint, and suffering severe pain over the stomach and belly, with desire but no power to pass his urine. It was ascertained that none had escaped into his clothes, and suspicions as to the nature of the mischief were confirmed by the circumstance of nothing escaping through a full-sized catheter which was passed easily and completely into the bladder. He was placed in bed, and hot fomentations were used to the belly until reaction took place, with which came increase of pain over the stomach and abdomen. Twenty leeches were also applied, and Mr. Chaldecott now passed a gum catheter, but with the same unsatisfactory result as before, not a drop of urine escaping through it. Mr. Chaldecott wished to have left the instrument in the bladder, but to this the patient strongly objected, and it was urged the less from some apprehension that in his restless movements the point might be forced through the wound in the bladder; the catheter was therefore passed every three or four hours, although up to two o'clock, P. M., fruitlessly.

The friends of the patient being apprised of the nature of the injury, and the extreme danger attending it, Mr. Key was sent for. He arrived at six o'clock, which was about eighteen hours after the accident, by which time the symptoms of peritonitis had increased to an alarming degree. The belly was painful, swollen, and tender; the pulse rapid and feeble, and the countenance anxious. Mr. Key passed a catheter (none having been used for the previous four hours); and about an ounce of bloody urine came through the instrument. Mr. Key concurred with Mr. Chaldecott in his opinion as to the nature of the injury and the nearly hopeless prospect for the patient.

At ten o'clock the patient took half a drachm of liquor opii sedativus, which after a few hours produced some comfortable sleep, and about four hours from the time of Mr. Key's visit, the catheter was again passed, and drew off about four ounces of clear urine. From this time, the pain, swelling, and heat in the stomach and abdomen gradually lessened, and it was evident that the bladder now held, as on each introduction the catheter brought away clear urine.

From this time until the 13th (that is, the sixth day from that on which the accident happened) all went on well, excepting that a smart attack of gout occurred on the 10th, although the patient had never before suffered one: but on the 13th, from a strong desire to become independent of the catheter, he made straining efforts to pass his water, and he had scarcely passed a tablespoonful when he felt (to use his own expression), something give way, and a burning pain all over his stomach and bowels, as if boiling water had been poured over them, and the same symptoms of faintness and distress occurred as when the accident first happened.

He was seen within a few minutes of this re-opening of the wound of his bladder, for it could not be doubted but such had been the consequence of his attempts to pass his water. On using the catheter, not more than a teaspoonful came through the tube. He had now again the symptoms of peritonitis, with the addition of incessant sickness. The same plan of treatment was again adopted—viz., fomentations, leeches, and a full opiate, with calomel.

About four hours after, on the introduction of the catheter, the bladder was again found to retain the urine: and although the peritonitis had increased to a severe degree, the pain, tenderness, and sickness gradually subsided; and by a patient submission to the continued use of the catheter for a fortnight, no more interruption to the patient's amendment occurred, excepting that the gout, which, under the use of colchicum, had nearly disappeared, again became severe, no doubt from the fresh absorption of urine which this second accident had permitted to escape into the cavity of the peritoneum. By this time it was presumed that the wound in the bladder had closed with sufficient firmness to allow the patient to yield to the desire to evacuate his urine without any straining efforts.

Two months have now transpired since the commencement of the case, and he feels no other inconvenience from his accident except a dragging sensation over the abdomen, chiefly on the right side, which is much increased when he attempts to lie on his left side. This no doubt results from adhesions, consequent upon the peritonitis.—

Prov. Med. Journal and Dublin Med. Press.

MIDWIFERY AND DISEASES OF FEMALES.

On the Nature of the Membrane occasionally Expelled in Dysmenorrhœa.—By J. Y. Simpson, M. D., &c.—It is now generally known, that in some cases of dysmenorrhœa, an organized membrane is expelled, during the period of the catamenial discharge; and that this happens either occasionally only, or what is far more common, during a long succession of menstrual periods.

"All authors who have expressed an opinion regarding the nature of this membrane have, as far as I am aware," observes Dr. Simpson, "regarded it as a morbid structure, formed by the exudation of coagulable lymph or fibrine upon the free surface of the mucous membrane of the uterus."

In the number of cases examined by Dr. S. from time to time, the form and structure of these dysmenorrhœal membranes led him to believe that they were not new or false membranes formed of coagulable lymph, and secreted by the mucous surface of the uterus, but that they in reality consisted of the mucous membrane of the uterus itself, hypertrophied and separated. "All my later observations have gone to confirm me in the same opinion, viz., that the productions in question are not the results, as is generally supposed, of fibrinous or plastic *exudations* upon the free surface of the mucous membrane, but that they consist of actual *exfoliations* of the membrane itself."]

The proof of this opinion rests upon different grounds:—

First, The dysmenorrheal membrane presents anatomical peculiarities that are never seen in any simple fibrinous or inflammatory exudation; and these anatomical peculiarities, on the other hand, specially pertain to, and are characteristic of, the structure of some mucous tissues, such as that of the uterus. One special illustration may suffice. Professor Reid, Krauss, and others, have shown, that the surface of the mucous membrane of the uterus is marked by numerous orifices of small tubular glands, crypts, or follicles, opening upon it (the uterine glands of some modern authors.) This structure I have distinctly traced in different specimens of dysmenorrheal membrane from different individuals.

Secondly, The general configuration and character of the surfaces of the dysmenorrheal membrane are such as would result from the origin which I have attributed to it, namely, the exfoliation or detachment of the mucous membrane of the uterus. In those instances in which the membrane is thrown off in one piece, and without disintegration, it presents exactly the flattened triangular appearance of the uterine cavity. Its sides may be so compressed that the expelled mass at first appears solid; but a little careful dissection or maceration will readily show that it consists of two layers, and that there are the remains of a cavity between them. The interior of the cavity is smooth, and marked by the orifices of the uterine mucous crypts that I have above alluded to. Occasionally we can easily trace three large openings at its three angles, corresponding to the openings of the two Fallopian tubes and cervix uteri. But the external surface of the mass is rough and shaggy, marking the effects of dilaceration from the tissue of the uterus. Sometimes we see a piece discharged quite smooth on one surface, and rough on the other. When this is the case, we may be perfectly certain that it is a portion only of the membrane which has been expelled, or, at least, preserved for inspection. For if the portion of mucous membrane lining the anterior wall of the uterus alone, or lining its posterior wall alone, be discharged and examined (and not that of the whole cavity,) it will necessarily display the apparent anomaly alluded to. If the membrane is thrown off in broken or disintegrated fragments, as sometimes happens, it will be more difficult to trace the structural characteristics that I have mentioned. Another form of difficulty is occasionally produced by blood being infiltrated into or upon the dysmenorrheal membrane. In some instances the membrane is found encased in one or more layers of coagulated blood; and if that blood has already become decolorized, and assumed a fibrinous appearance, mistakes might easily occur, provided the inquirer were not aware of this source of fallacy.

Thirdly, The dysmenorrheal membrane exactly resembles the decidual membrane (the decidua vera;) and all our highest authorities in anatomy are, I believe, now willing to grant that, as pointed out by the researches of Sharpey, Weber, Goodsir, and others, the decidua vera is not a new membrane, formed in the uterus after conception, but merely the normal mucous membrane of the uterus hypertrophied, with its mucous crypts or follicles increased in size, and the cells of its interstitial tissue greatly developed and multiplied. In the dysmenorrheal membrane the mucous follicles or crypts are perhaps not enlarged and developed to the same proportionate degree as they are in the decidual membrane. In other respects the two membranes are identical. They have the same triangular form. There is the same appearance in both of openings at their three angles, and in both these openings are occasionally more or less perfectly sealed up when the tissue of the membrane, in their immediate neighborhood, is developed in an unusual degree. The external surface of each membrane has the same shaggy, ragged form. In each we have the same cribriform appearance upon their smooth internal surface, marking the orifices of the mucous follicles. When examined under the microscope, the interstitial or inter-follicular tissue of both membranes, shows a similar structure, namely, one wholly composed of an agglomeration or superposition of simple nucleated cells. And altogether, if, on the one hand, it be allowed that the structure of the decidua proves it to be the mucous membrane of the uterus in a state of high development and hypertrophy, then, on the other hand, the structure of the dysmenorrheal membrane is so similar to that of the decidua, as to prove a perfect identity with the decidua in its characters, and consequently, also in its origin.

In some respects the evidence which we have in favor of the decidual membrane being merely a hypertrophied state of the mucous membrane of the uterus, is still wanting, in so far as regards the dysmenorrheal membrane. For, *first*, in cases of patients dying at different periods of early pregnancy, a regular progression of observations has now been made, showing the gradual transformation of the true mucous into the true decidual membrane; and, *secondly*, in patients dying after delivery, and, consequently, after the separation of the decidual or lining membrane of the uterus, the actual absence of the mucous surface of the uterus has been often ascertained on dissection. I lately saw a case where the patient died six weeks after delivery, and still, at that late date after confinement, the mucous lining of the uterus was not yet regenerated. No corresponding series of observations has hitherto been made upon the actual formation of the dysmenorrheal membrane before menstruation, or upon its actual absence after that period. But a more careful investigation of the state of the uterus after death, in patients who have happened to be suffering under membranous dysmenorrhœa during life, will, I have no doubt, afford the requisite data. It may not be uninteresting to add, that the absence of the mucous lining of the uterus in persons who have died after delivery, or who have been previously subject to membranous dysmenorrhœa, may have given rise to the strong opinions expressed in former times by several anatomists, and particularly by Morgagni, Chaussier, and Gordon, in regard to the human uterus not being normally provided with a mucous membrane. Not meeting with that membrane under some circumstances and in some cases, they were induced to doubt its presence under any circumstances or in any cases.

Modern physiology has made us sufficiently acquainted with the curious fact, that a portion of the epithelial layer of the mucous surface of various organs, exfoliates constantly and normally during the performance of the special functions of these organs. For instance, this holds true with regard to the epithelium of the stomach during digestion, and that of the uterus during menstruation. But there are few circumstances, either in healthy or morbid anatomy, so strange as that which I have attempted to prove in the preceding remarks, namely, that the proper mucous tissue of the uterus itself may, within the compass of a menstrual period, form, enlarge, separate, and again be reproduced; and further, that all this may occur and continue regularly for a succession of months, or, as sometimes happens, for a succession of years.

I have no intention, however, at present of dwelling either upon the various pathological or practical views to which the opinion that I have above propounded regarding the origin and nature of the dysmenorrheal membrane, very evidently points. It is enough perhaps to remark, that the observations which I have made go to demonstrate that the dysmenorrheal membrane is not formed, as is generally believed, by a simple inflammatory effusion of plastic or coagulable lymph, and hence it is not to be successfully prevented and combated by simple anti-inflammatory treatment. The action giving rise to it may in some cases be combined or complicated with inflammation. I have seen, for example, the membranous dysmenorrhœa in several instances co-existing with inflammatory induration and ulceration of the cervix uteri. But essentially, the normal action of the uterus or ovaries giving rise to the formation of the dysmenorrheal membrane is not a state identical with inflammation, but a state identical with the condition of these organs after impregnation and during the earlier weeks of pregnancy. It is so far a state and product natural to one special condition of the uterus, but here occurring at an unnatural time, under unnatural circumstances, and with unnatural frequency.—*Monthly Journal of Medical Science, Sept.* 1846.)

Résumé of Midwifery Statistics published during the last few years.—1. Of 35,743 labors which occurred in the practice of Dr. R., during the period included between the years 1828 and 1843, twin births occurred 386 times, and triplets once. The number of children produced was 36,131, 18,610 males ($51\frac{5}{10}$ per cent.), 17,521 females ($48\frac{5}{10}$ per cent.)

The presentations were as follows: the head presented 35,096 times, including 141 face presentations, and 6 of the ear; breech and extremities presented 930 times; 105 were cross births.

Of the 36,131 infants, 33,868 were born alive, 2263 dead.

The mother died in 166 cases; of these 126 were from puerperal causes.

The placenta was adherent in 206 cases; it presented 40 times; its expulsion was followed by hemorrhage 70 times.

The forceps was used 49 times; craniotomy 38 times; premature delivery was induced in 20 cases.

Of the 126 women who died from puerperal causes, 56 died of hemorrhage; 6 after the performance of craniotomy: 3 after the application of the forceps; 2 from convulsions; 20 from peritonitis; 8 from rupture of the uterus; rupture of the vagina 1; metritis 8; diffuse pelvic inflammation 2; pneumonia 5; fever 4; intestinal irritation 2; puerperal mania 2; apoplexy 2: exhaustion 2.

Of the 2263 still births, 373 were premature; 173 in a state of putrefaction; 174 were breech presentations; 61 transverse: 32 placenta presentations; 60 were lost from hemorrhage; 37 from craniotomy; 11 from application of the forceps; 20 were monsters; 39 died from prolonged labor; 12 from convulsions; 109 from prolapse of the cord; 9 after rupture of the uterus or vagina; the remainder from unknown causes.—(Medical Gazette, Aug, 1844.)

2. Dr. De Belli gives the following account of the cases which occurred in the Lying-in Hospital of Milan between the years 1834 and 1843. The total number were 2739, of which 2551 were natural labors; 173 were terminated by artificial means; 15 were artificially induced. There were 34 twin cases. The children were 2773 in number; 1477 males, 1296 females.

The presentations are thus distributed:—

1 Head.	Vertex	1st position	2447	
		2d ditto	163	
	Face	1st position	11	
		2d ditto	6	2627
2 Feet.	1st position		24	
	2d ditto		8	
3 Breech.	1st position		32	
	2d ditto		12	76
4 Transverse presentations				37

Turning was performed 51 times, in 41 of these for transverse presentations. The forceps were used in 62 cases; in 39 disproportion of the pelvis; 14 for convulsions; 7 times on account of rigidity of the soft parts; craniotomy was performed in 39 cases, and it is remarkable that 4 of these were footling cases.

Gastrotomy was performed 18 times, in 3 cases the woman was at the point of death; in 15 cases on account of deformity of the pelvis; of these only one recovered. This female died under a subsequent operation.

Of the 2739 females the deaths were 229; 113 from utero-peritonitis; 2 rupture of the uterus; 2 gangrene of the vulva; 1 from hemorrhage; and 88 from other causes.

3. The statistical information published by Dr. Murphy includes the re-

ports of 467 labors, by which 470 children were produced, 248 males, 222 females, 498 of these labors terminated naturally, 8 artificially; viz. 4 by the forceps, 2 by craniotomy, and 2 by turning.

The presentations were: Vertex 447; face 7; feet 6; arm and shoulder 2; unnoticed 8.

Of the 467 women 454 recovered rapidly; 10 slowly; 3 only died, 2 of these from puerperal fever, 1 from cholera.

Of the 470 infants, 443 were born alive, 37 dead; of the latter 4 were premature; 4 putrified; 3 from prolapse of the cord; 2 from hemorrhage; the remainder from causes unknown.

The placenta was expelled under an hour in 362 cases; at two hours in 25 cases; at a longer interval in 23; it was removed in 21 cases. [This communication includes many most interesting observations connected with menstruation and pregnancy. It is to be found in the "Dublin Journal," Nov., 1844.]

4. In the Birmingham Hospital 650 women were delivered during the year 1844. From these 660 infants were produced, 373 boys, 278 girls; of these 30 were still-born. Of the women 6 died; 4 from puerperal fever; 1 from hemorrhage; 1 from disease of the uterus.

The presentations were: face 13; breech 17; feet 2; arm 4; placenta 4. The forceps were used 4 times. The mean duration of labor was 7 hours 6 minutes. (Lancet, March, 1845.)

5. The experience of Dr. Toogood, of Bridgewater, gives the following results: of 1135 cases, 8 were face, 11 breech, 3 feet, and 4 arm presentations.

There was severe hemorrhage in 21 cases; presentation of placenta in 1; 24 cases of adhesion of the placenta; 2 cases of rupture of the vagina; 1 case of puerperal convulsions. In 15 instances the forceps were used; in 6 the head was perforated; 3 females died. (Prov. Med. Journ., May, 1844.)

6. In 628 cases reported by Dr. Adams, twins occurred 10 times, and triplets once. In 28 cases labor required artificial assistance; 14 times by the forceps; 4 times by the perforator or crotchet; 9 times by version; once by vaginal hysterotomy.

The application of the forceps was necessitated in the majority of the cases by disproportion between the head of the child and the pelvic outlet; in 4 cases it became necessary from uterine inertia.

Of the 640 infants produced, 27 were still-born (10 putrified, 17 died, during labor;) the deaths of the mothers were 5 in number. Among the 443 living children, 4 presented syphilitic blotches; 7 herniæ; 3 cephalhematoma; 2 club-feet; 2 hare-lip. (Month. Jour., Nov., 1844.)

7. Professor Campbell's statistics are to be found in our 2d Vol., p. 294.

8. Dr. Reid gives an account of 5691 labors. In these the head presented in 5443; the breech, or lower extremities, in 161; shoulder or arm in 29; face in 25; abdomen in 1; cord in 31.

Among the complications which presented themselves were—puerperal convulsions 11; retroversion of the uterus 2; rupture of the uterus 2; placenta prævia 8; hemorrhage before expulsion of the placenta 32; after 40. The forceps was used in 31 cases; craniotomy in 22; turning in 28; spontaneous evolution occurred twice.

A general summary of the above statistical information gives the following results:

Total number of labors	47,116
Twins	446 (9$\frac{4}{10}$ in 1000)
Triplets	4 (1 in 12,000)
In 41,452 cases in which the presentation is noted, it was—	
Head (vertex 40,046; face 187)	40,233
Breech and lower extremities	1065
Transverse	154
In 47,116 labors, there were	
Natural terminations	46,632

Artificial	Forceps	321
	Craniotomy	89
	Version	54
	Hysterotomy	20

Archives Générales.

On Extraction of the Placenta before the Child.—[At the termination of a paper on the "History, Causes, and Treatment of Placenta Previa," Dr. Edwards thus speaks of Dr. Simpson's proposal.]

Experience will decide in what varieties of placenta previa this practice is most admissible; but from what we can glean at present, it seems peculiarly indicated—

1. Where the patient is of so weakly and delicate a constitution that loss of blood to any great extent would be attended with present danger, and subsequent injurious effects.
2. Where the child is well ascertained to be dead.
3. In cases in which the powers of life have been excessively lowered by the hemorrhage, and the os uteri remains firm and unyielding.
4. In cases in which, although the os uteri is dilatable, the powers of life would be unequal to the shock of turning.
5. In primiparæ, when the soft parts are so contracted that they would be liable to be bruised or torn in turning.
6. In contracted pelvis.—*Lancet.*

Follicular Disease of Vulva.—Arg. nit. and nitric acid are of no use. Hydrocyanic acid lotion is serviceable, or an ointment made of two drachms of prussic acid and a scruple of diacetate of lead, with two ounces of cocoanut oil. The parts are to be first washed with infusion of roses, and the ointment applied two or three times a-day on lint.

Or try a lotion of lime water with opium; or make a poultice of bread, saturated with decoction of conium leaves, to a pint of which add two drachms of the liq. plumbi diacet.

When irritation is excessive, prescribe vapor-baths, either simple or medicated with sulphur. Attend to general health, order a nutricious but unstimulating diet; avoid wine and porter; give milk with lime water; keep the patient at rest; forbid sexual intercourse. There should be change of air. Give the vegetable tonics, as cascarilla, calumba, cinchona, sarsaparilla, &c.; keep the bowels open with small doses of magnes. sulph., in infusion of cascarilla or chamomile. When the symptoms are decidedly abating, give a mild mercurial course with sarsaparilla. (Mr. Oldham.)—*Braithwaite.*

Syphilis within the Os Uteri.—In consequence of several individuals affirming that they had been infected with the venereal disease by a young woman apparently in perfect health, M. Delmus instituted a very minute examination. The exterior of the genital organs, as well as the margin of the anus, were in a normal condition. On employing the speculum, nothing abnormal could be perceived in the vagina. The os tincæ and neck of the uterus did not vary from their natural appearance in a female who had not borne children. There was nothing which indicated either inflammation or syphilis. On pressing the neck of the uterus in various directions, to ascertain the degree of sensibility of the parts, and the nature of the liquid which proceeded from it, an almost transparent albuminous matter was observed, mixed with a whitish liquid of a doubtful aspect. Some of this matter being collected with a curette, a lancet was charged with it, and four pricks made on the thigh. On the fourth day, the wounds assumed the form of four well-marked chancres, and subsequently almost the whole body, not excepting the face, became covered with flat pustules, some dry, and others running. The eruption rendered the woman almost hideous, and it was not until after a mercurial course of three or four months' duration, including the use of strong sublimated baths, that she was cured.—*Ibid.*

MATERIA MEDICA AND PHARMACY.

Solution of Hydriodate of Arsenic and Mercury.—Arcenici et hydrargyri hydriodatis, liquor of Mr. Donovan, of Dublin.—Iodo-arseniate of mercury of Soubeiran. Arsenic, mercury, and iodine being in some respects similar to each other in some of their effects, and occasionally prescribed in a solid form, Mr. Donovan was induced to propose the more perfect form of a chemical solution. This is of a yellow colour, with a tinge of green, styptic in taste. Each fʒj of solution (water) contains protoxide of arsenic gr. $\frac{1}{8}$, protoxide of mercury gr. $\frac{1}{4}$, iodine (converted into hydriodic acid) gr. $\frac{4}{5}$, chemically combined together. Mr. Donovan gives the following directions for preparing it:

Triturate 6 08 grs. of finely levigated metallic arsenic 15·38 grs. of mercury, and 49.62 grs. of iodine, with fʒj of alcohol, until the mass has become dry, and from being deep brown has become pale red. Pour on aq. dest. f℥viij, and after trituration for a few moments, transfer the whole to a flask; add ʒss. of hydriodic acid, prepared by the acidification of gr. ij of iodine, and boil for a few moments. When the solution is cold, if there be any deficiency of the original f℥viij, make it up exactly to that measure with distilled water.

Action. Uses.—Alterative, stimulant, effective in various obstinate skin diseases, as lepra, psoriasis, &c.

D. ♏x—fʒss, three times a day in distilled water. Externally, fʒj, to aq. dist. f℥j, as a lotion. (Royle.)—*Ranking*.

Tannate of Iron in Chlorosis.—M. **Benedetti** considers that the tannate of iron (ink) is one of the best remedies in the treatment of chlorosis. The dose may be from about eight to thirty grains daily; and the patient commonly recovers in from twelve to twenty-five days.

The tannate of iron employed by him is prepared by dissolving iron filings in dilute sulphuric acid, precipitating by carbonate of soda, so as to obtain a pure carbonate of iron. Forty-four parts of this carbonate, in a state of dry powder, are to be added to nine parts of pure tannic acid, dissolved in boiling water. The mixture is stirred and evaporated until the tannate is obtained as a dark, insipid, uncrystalline compound. It may be given suspended in syrup, or in the form of pills.—*Lond. Med. Gaz., from Gaz. Med.*, Oct. 10.

Use of Sulphuric Acid against Aphthæ.—Prof. **Lipwich**, (of Padua) says that he uses with success, sulphuric acid, in the form of a liniment, against aphthæ and syphilitico-mercurial stomatitis, when the mucous membrane of the mouth and lips is covered with ulcerations rendering deglutition difficult. The following is his formula:

℞. White honey, 30 parts,
Diluted sulphuric acid, 2 parts.
M. for a liniment.

The proportion of acid may be augmented to 8 parts, for the same quantity of honey when necessary. The ulcerated surfaces are touched several times, daily, with a camel's hair pencil, saturated with this liniment.—*Gaz. Med.* (*St. Louis Med. and Surg. Jour.*)

Pills of Protiodide of Iron.—

	Grains.
Crystallized sulphate of iron	24
Iodide of potassium	
Gum tragacanth	5
Sugar	15

Syrup of marsh-mallow q. s. for 36 pills.

Each pill contains 3-4ths of a grain of dry iodide of iron, and half that quantity of sulphate of potash.

We obtain a mass that can be easily preserved, by substituting ℈iss. of the crumb of bread for the gum and syrup. These pills are to be rolled in lycopodium powder, and placed in a dry place.—*Ranking's Abstract.*

On the Therapeutical Employment of certain Medicines in Skin Diseases. By Dr. William Seller.—*Hyd. Nitrico-Oxydum—Unguentum.*—The red precipitate ointment answers in many cases in which citrine ointment is used, as in porrigo furfurans; with the unguent. zinci it is useful in porrigo favosa. The ointment of deutoxide of mercury, recommended by Cazenave in papular diseases of the face, is made as follows: deutoxide of mercury, ʒss, camphor grs. iv, (?) lard ℥j.

Iodinium.—Iodine in the treatment of skin diseases is seldom used in the uncombined state. As a means of improving the general health, and of thus calling forth the latent sanatary powers of the constitution, few remedies will bear a comparison with iodine and its compounds; but in regard to diseases of the skin, the author thinks that slighter benefit is derived from its internal use than its evident alterative qualities might lead us to expect. Its chief power lies in its external application. Among the means of employing it locally are the iodine bath and iodine ointment. The bath should be of the strength of from two to four drachms of iodine, with hydriodate of potash, four to eight drachms [to a full bath. Ed.]. The iodine ointment and the compound iodine ointment of the London Pharmacopœia are useful in acne, porrigo, and the scaly diseases.

Pix liquida, Tar; Pix arida, Pitch.—Both pitch and tar are used in cutaneous diseases; both are applied externally, and pitch is, besides, given internally. The preparations of each are used in the scaly eruptions, as lepra, psoriasis and ichthyosis. The internal use of pitch in these diseases may be carried to the extent of half an ounce in the twenty-four hours. In pityriasis versicolor, and in ichthyosis, pitch has been pronounced as the best remedy. Rayer speaks highly of a pitch ointment in papular eruptions, and particularly in porrigo; he also recommends the free use of pitch internally in chronic ecthyma. In ringworm of the scalp, pitch ointment is very serviceable.

Potassi Sulphuretum.—This salt is beneficial in several eruptions, in the form of lotion or ointment.

There are numerous formularies for lotions, liniments, and ointments, of sulphuret of potassium. Sulphuret of potassium one drachm, white soap two drachms, distilled water eight ounces; for use in prurigo, scabies, porrigo. *Dupuytren's lotion:* Sulphuret of potassium four ounces, sulphuric acid half an ounce, water two pints; for use in scabies. *Barlow's lotion:* Sulphuret of potassium, white soap, of each two drachms, lime-water seven ounces, alcohol one drachm; for use in porrigo. *Jadelot's liniment:* Sulphuret of potassium six ounces, white soap two pounds, olive oil two pints, oil of thyme two drachms; for use in scabies and prurigo.—*Northern Journal of Medicine.*

TOXICOLOGY.

Poisoning with Oxalic Acid.—At the recent meeting of the British Association, Dr. Lethely read a paper on this substance. The following notices, taken from the *Literary Gazette* and the *Athenæum*, will give an idea of its contents, until we receive the communication in full.

Dr. Lethely asserts that oxalic acid exerts a corrosive influence upon the tissues of the stomach. And in proof, he cited post-mortem examinations of the human subject, his experiments upon animals, and the result of his experiments with different solutions of oxalic acid on the various animal textures. With regard to the effects of oxalic acid upon the living body, it has hitherto been a question with physiologists how it produces its quick and energetic action. Experiments show that this poison is absorbed, and that it may be detected in the blood and urine; post-mortem examinations also indicate that the former fluid is deprived of its power of spontaneous coagulation. Dr. Lethely thinks it reasonable therefore to infer, that it exerts some specific influence over the vital properties of this fluid, and so deprives it of the power of sustaining life. The second notice is as follows:—

"It is stated by Dr. Coindet, Dr. Christison, and others, that oxalic acid does not appear to have any corrosive action on the stomach like the mineral acids. Dr. Lethely, however, remarks, that these statements are opposed to the observations which he has made. In every case examined by him, the stomach, after death, was found to be so completely corroded, that it would not hold together. Numerous experiments were made with various animal tissues, such as submitting skin, stomach, intestine, muscle, and tendon, to the action of oxalic acid of different strengths. After standing about twelve or fourteen hours at a temperature of 60° F., it was found that the cellular and mucous tissue of each underwent either complete solution, or else was so softened as to break down under the pressure of the fingers and thumb; the albuminous and muscular tissues were also softened, and looked as if they had been scalded. The solutions were then filtered and evaporated in a water-bath: by which means a gelatinous-looking mass was obtained, and the oxalic acid had so entered into combination with the gelatine, that it could not be dissolved out in its usual manner by the action of cold acohol.

Amer. Jour. Med. Sci. T. R. B.

Atropa Belladonna.—Several deaths have recently occurred in London from eating the berries of this plant, the deadly nightshade. It seems that they have been extensively hawked about for "nettleberries," and recommended as nice for tarts, puddings, &c.

On a legal inquiry being made at one of the police offices, it appeared by the deposition of a female, that through such recommendation she had been induced to purchase a pint of them. The next day, being the anniversary of her wedding, she made a tart with the berries, after cutting off the stalks, and also cut up two apples, which she mixed with them, and, with her husband, partook of it. Her husband ate more heartily of the pie than she did. Before the remains of the dinner were removed, a customer came in to pay some money, and was accompanied by a child named Samuel Jones. The little boy looked very anxiously at the tart, and she gave him some. A few minutes after her husband had finished his dinner, he said he was drowsy, and went into the parlor. His lethargy soon increased, his countenance changed color, and the pupils of his eyes became dilated. He said he had a very strange coppery taste in his mouth, and that he would go up stairs, and lie down on the bed. As he went up, he staggered, and upon entering his bed-room, fell, and became insensible. He subsequently became delirious and convulsed. She obtained an emetic for him, but could not get it down, as his teeth were firmly set. He attempted to strike her in his delirium, and when he recovered a little, said he was sorry and asked her to kiss him. These were the last words she heard him speak. He was conveyed to the London Hospital at seven o'clock the same evening, and died at ten the next day. The child to whom she had given some of the tart, died on the same day. She did not eat so heartily of the tart as her husband, but she was very seriously affected. She experienced a nauseous taste like copperas, in her mouth, a tingling in the fingers, and stupor. Subsequently she lost the use of her limbs, and was still suffering severely.

Another lad deposed that he had purchased some of the berries from the hawker, and ate them, and soon after found his throat parched, and was conveyed to the hospital. A post-boy proved that after eating only half a dozen of the berries, they had thrown him into a high state of fever, and given a most unnatural redness to his face.

The hawker, who had been arrested, and who was now present, asserted that he had eaten whole pints of the berries without injury. He was remanded to prison, on a charge of manslaughter, and subsequently found guilty on this charge.—*Lancet*, August, 1846.—*Amer. Jour. Med. Science.*

Magnesia.—In Poisoning with Arsenic.—M. A. Bussy gives the following results of his investigations on the *employment of magnesia in the treatment of poisoning with arsenious acid:*

1. Purified animal charcoal recently proposed as a remedy against poisoning with arsenious acid, cannot be advantageously used with this view.

2. Pure magnesia, slightly calcined, is capable of absorbing arsenious acid in solution, and of forming with it a compound, insoluble even in boiling water.

3. In a gelatinous state it absorbs the arsenic still more readily.

4. Animals to which arsenic had been administered, were invariably saved when they were made to take sufficient doses of magnesia.

5. This antidote has advantages over others hitherto known and employed, in its being always at hand; neutralizing the poison readily and completely; being administered without difficulty in large doses; and its therapeutic effects being coincident with the indications which we wish to fulfil in this kind of poisoning.

6. Magnesia decomposes tartar emetic, the salts of copper, and corrosive sublimate; and there is reason to believe, that it may be had recourse to with advantage to combat and weaken the effects of these toxic substances, and of the metallic salts in general.

7. The salts of the organic alkalies, morphia, strychnia, &c., being, also, decomposed by magnesia, the use of this substance in cases of poisoning by the organic products, the properties of which are dependent on the vegetable alkalies, may have the effect of retarding and rendering more difficult the absorption of the poison: but this point the author proposes to verify by farther experiments.—*Bull. of Med. Science.*

MISCELLANEA.

Chinese Ideas respecting the Anatomy of the Circulating System.—The heart is figured low in the thorax, is considered a single cavity, and the reservoir of good things; it has little active connection, none that can be traced, with the general circulation. From above, the windpipe passes directly into it; while from below, the tube of a second, elective stomach, connected with the first, recipient stomach, by some kind of conduit, enters it at nearly the same point with the windpipe. Short work is thus made with the complicated and mysterious process of assimilation. One vessel proceed- from the heart to the liver, and another descending along the course of the spine, after communication by a broad reservoir-like expansion, with the kidneys, *it is presumed*, terminates in the genitals. There is, besides, a double canal, connecting the heart at a point near its apex, with the tube last noticed. But what all those things mean, and what part, if any, the heart acts in propelling the blood, the professor who was asked to explain what appeared in the plate, failed to show. Chinese notions regarded the circulating system, as on most other subjects, are peculiar to themselves, and differ entirely from those entertained by European physiologists, anterior to the time of Harvey and Servetus. In this, as in other vital actions, they introduce the sexual system. They have some idea of difference between arteries and veins, but what it is, and what offices they assign to each, could not be ascertained.

The arteries are said to be male and female. Of the former, three, belonging to the hand, proceed from it to the head; while three, belonging to the foot, originate in the hand, whence they descend to their proper place. On the other hand, three female arteries proceed from the bowels to the hand, to which they belong; and three, belonging to the foot, originate there, and then proceed to the intestines.

Besides these vessels, there is the pulse artery, which moves with every respiration three inches, and performs its circuit in two minutes. The chief concern of the doctor is the study of this artery, that he may clearly understand, and accurately unfold its manifold meanings; for in so much as he has skill to read its language accurately, by so much is he excellent as a practitioner. From it, besides the temperament of the patient, he deduces the diagnostic character of the disease he is called to treat, after which, having settled the kind and degree of disorder which has arisen among the elements, he sets manfully to work, and boldly promises a cure, knowing, what is not peculiar to China, that the man who promises most in medicine is most followed.

The veins are said to circulate day and night, but it does not appear that they believe the motion to be onward and in a circle: for they say, that having arrived at the end, it again commences where it left off. Nor do they admit that the arteries and veins have any connection: for they allege that all the arteries and veins have their respective cavities, twelve in all, such as the liver and heart, from which they proceed, and corresponding places where they end; and that, throughout the body, there are paths, ducts, and channels, distinct and appropriate to each, so that the blood does not meet with obstruction in its passage, though why it passes, and by what mechanism, does not appear.

The heart is said to be the ruler, from which the spirits proceed; it is also held to be the receptacle of marrow, which comes from the brain, and goes to the reproductive organs. The lungs are vehicles by which the temper is regulated. The liver holds the place of a general, whence proceeds contrivances and orders. The bile acts as umpire, settling disputed points. The spleen performs the part of messenger, and is the fountain of joy—a function not before ascribed to it, but to which it has as good a title as to be considered the seat of ill-humor and despondency. The stomach is the granary of the body, and the governor of the five tastes. The great duct is the promoter of principles, and the operator of changes; the smaller ones being the receptacles of superfluity, where digestion is carried on. The kidneys are the rulers of strength, whence all skill proceeds. The bladder, having no connection with the kidneys, is the general reservoir of the absorbents.—*Wilson's Med. Notes on China.*

A new Mode of preserving Animal Substances. By the ABBE BALDAUMIK. —The Abbé Baldaumik, preparator at the Museum of Natural History at Vienna, has succeeded in rendering animal substances as hard as stone. To effect this he immerses them in water, holding in solution bichloride of mercury and hydrochlorate of ammonia. Substances that have remained immersed in this liquid for some time acquire the hardness of stone, may be polished, resist the hammer, have an angular fracture, and give out a metallic sound when struck. They preserve their natural colour, and require no further care after they are taken out of the bath.—*Chemist, from Archiv. de Pharm.*

French Medical Students.—By a decree just issued from the University of France, it has been ordered that, after the 1st of November, 1846, all medical students shall undergo an examination at the end of each of the three years of study. In the first year, on physic, chemistry, and natural history; in the second year, on anatomy and physiology; and in the third year on pathology. There will be three examiners, and four students at each examination. The examinations will take place between the 15th of July and the 1st of August, and any student who fails to satisfy his examiners, cannot again present himself until the following November. Unless he then passes, his ticket for the ensuing quarter will be withdrawn. If again rejected in November, he must resume his studies for a year.

These rules are severe, but they embody a much better method of testing the knowledge of a candidate than the mere forms of examination which are gone through in this country, upon all kinds of subjects, at one sitting of an hours's duration.—*Med. Gaz.*

Embalmment of Plants.—A Swedish botanist pretends to have discovered the means of embalming plants. He has divulged his secret to the Academy of Stockholm, sending, at the same time, a tea-rose plant, embalmed by his process, in 1844, which is now in a perfect state of preservation.—*Gazette Medicale.*

Life of Harvey.—William Harvey was descended from a respectable family in Kent. He was born at Folkstone, on the 1st of April, 1578, the eldest of seven sons. He received his early education at Canterbury, and thence proceeded, when sixteen years old, to Caius College, Cambridge. After six years of study in the University, he went to Padua, and received there the degree of Doctor of Medicine, in 1602.

On his return to England he was admitted in 1604 a Candidate, and in 1607 a Fellow of the Royal College of Physicians. In 1609 he became physician to Saint Bartholomew's Hospital. In 1615 he was appointed to the Lumley and Cardwall Lectureship on Anatomy and Surgery at the College of Physicians; and in the following year, in the Lectures which he read in this office, he first publicly explained his discovery and doctrine of the circulation of the blood. The account of his researches was first printed at Frankfort, with the title of "Exerciatio Anatomica de Motu Cordis et Sanguinos in animalibus," in 1628.

In 1623, Harvey, who had been for some time Physician Extraordinary to James I. was appointed to share the responsibilities of the Physician in Ordinary, and was promised the succession, on the first vacancy, to the dignity also.

In 1629, Charles I. sent him to travel with the Duke of Lenox; and on his return in 1631, he became Physician to the King and royal household.

It is probable that, after this appointment, the greater part of Harvey's time was spent with the Court. The King encouraged his researches, and himself, with the nobles of his household, used to engage Harvey in the demonstration of his great discovery. It was also by the King's command that, in 1635 he dissected and recorded the examination of the body of Thomas Parr, who died at the age of 153 years.

When the civil war broke out, Harvey accompanied the King from London: he was present at the battle of Edgehill, 1642, and thence went to Oxford, where he was shortly after incorporated a Doctor of Physic, and, in 1645, was made Warden of Merton College.

Within a few months, however, Oxford being surrendered to the Parliamentary troops, the former Warden was restored; and Harvey returned to London. He lived for some time with his brother Sir Eliab, who resided in the Poultry: and then passed many years in retirement at Lambeth and Richmond.

In 1651, with the same diffidence which had led him to delay the printing of his work upon the circulation of the blood for twelve years after he had completed the demonstration of the doctrine, he allowed his friend and biographer, Sir George Ent, to publish his "Exercitationes de Generatione Animalium." In 1652 he undertook to build and store, at his own expense, in the garden of the College of Physicians, a Museum and Library; which, being completed in the following year, he presented to the College, after a splendid banquet, to which he had invited all the fellows.

In 1654 Harvey was elected President of the College, but declined the honor on account of his age and infirmities; he still, however, attended the College meetings, and in 1656 gave to the College an estate of £56 a year, which had been left him by his father. In 1657, on the third of June, having entered his 80th year, he died: and the fellows of the College, who had already, in 1652, placed his statue in their Hall, accompanied his body far beyond the city walls on the way to its grave at Hampstead, in Essex.—*From Mr. Paget's Records of Harvey.—Med. Examiner.*

OBITUARY.

Died, in New York, on the 8th of February, Uriah Turner, M.D., in the 49th year of his age.

Dr. Turner was one of our early friends and associates in the study of medicine, and our acquaintance with him dates back even beyond the commencement of his professional career. He was endowed by Nature with a high order of talent and genius, and those nice sensibilities and susceptibilities which belong to minds of such exquisite mould. Had his health permitted—for he was always an invalid—he would have risen to the highest eminence in his profession; for his mind was eminently a practical one. His life was one of suffering—pure and unspotted—but we leave to another and an abler pen to record his worth.

Dr. Turner was a native of Litchfield Co., Connecticut, where, for several years, and until loss of health compelled him to quit his post, he practised his profession with skill and success. He then removed to New York, but his professional success was blasted here, by the frequent and severe attacks of his old malady—asthma. Subsequently his health being somewhat improved, he established himself with very flattering prospects in Stamford, Conn.—but again being overpowered by his inveterate malady, he returned to the city, where, for a time, he was engaged in the publication of the N. Y. Medical Gazette.

Of late he had enjoyed a comparative exemption from suffering, but at length his shattered constitution was once more challenged to the conflict, and overthrown in the struggle.

Sad is the history of the doings of disease and death;—sad, indeed, when the theme is of those whom we at once love and respect.

Of a small association of professional friends, who *understood* each other, formed about 20 years since, Dr. Turner has been the first to retire from what, to most, is a chequered scene of good and evil, but which was to him, alas! too uniform—too much one of sameness of pain. The survivors *knew* him—*they will remember him*, during their own brief "loitering by the way."—and after all, what greater sublunary good than Friendship's remembrances is there inscribed on the tablets of Hope?

As a medical man, Dr. Turner was a good specimen of the character of the New England physician, as exhibiting a mind enlightened by science, but not enslaved by precept.

The few published papers from his pen, serve to increase regret that the mind which observed so closely—which judged so rightly—and which described so plainly, should have been lodged in a tenement too frail for the task of a fuller manifestation of its powers; but cherishing, as we do, the memory of our friend, as he *was*, it seems like profanation to wish that he had been, in any respect, different.

His labours are ended—the scene is closed—care has ceased to trouble him—the weary one is at rest.

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Art. X.—The Institutes of Medicine. By **Martyn Paine**, A.M., M.D. Professor of the Institutes of Medicine and Materia Medica in the University of New-York, etc. New-York, Harper & Brothers, 1847. 8vo., pp. 826. - - 356

Art. XI.—A System of Human Anatomy, General and Special. By **Erasmus Wilson**, M.D., Lecturer on Anatomy, London. Third American, from the third London edition. Edited by **Paul** B. **Goddard**, A.M., M.D., Prof. of Anatomy, etc., in the Franklin Medical College of Philadelphia. With two hundred and thirty-three Illustrations by **Gilbert**. Philadelphia, Lea & Blanchard, 1847. 8vo., pp. 610. - - 357

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Art. XII.—Handbook of Human Anatomy, General, Special, and Topographical. Translated from the original German of Dr. Alfred Von Behr, and adapted to the use of the English Student. By John Birkett, Fellow of the Royal College of Surgeons of England, and Demonstrator of Anatomy at Guy's Hospital. pp. 487. Philadelphia: Lindsay & Blakiston, 1847. - - - - - - - - - - 358

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TO READERS AND CORRESPONDENTS.

The present number completes the eighth volume of the "New-York Journal of Medicine and the Collateral Sciences." In reviewing its past history, the Editor has abundant reason to take courage and press on with renewed ardor and diligence in his efforts to sustain the work, and render it useful to his professional brethren. The encouragement and generous co-operation he is receiving from the profession in every part of this country, are such as to strengthen his heart, and inspire him with full confidence, that the chief objects of the publication are reasonably answered. He need not allude to the difficulties and embarrassments he has had to encounter, from certain fortuitous and untoward circumstances; it is enough to know that all obstacles have been overcome, and henceforth a smoother path lies before him. As heretofore, the guiding maxim will be "the greatest good of the greatest number," and this will be followed out, disregardful of all personal or other considerations. To those who have aided the work, either by their subscriptions or communications, the Editor returns his sincerest thanks, and trusts that their favors will still be continued. Should life and health be spared, he pledges his best efforts to give additional interest and value to its pages. The next volume will commence a *New Series*, as the back numbers have been absorbed by new subscribers.

The communication from Professor J. B. Beck, announced for the present number, will appear in our next.

Communications have been received from the Brooklyn Medical Association; Dr. D. M. Sweat, of Maine; and several others.

The following works have been received since our last:—

A System of Human Anatomy, General and Special, by Erasmus Wilson, M.D., Lecturer on Anatomy, London. Third American from the third London edition. Edited by Paul B. Goddard, A.M., M.D., Professor of Anatomy, etc., in the Franklin Medical College of Philadelphia. With two hundred and thirty-three illustrations by Gilbert. Philadelphia: Lea and Blanchard, 1847. 8vo., pp. 610.

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Annals of the Lyceum of Natural History, of New-York, Nos. 8 and 9, Vol. IV. Stanford & Swords, New-York, 1847.

Thoughts on the Effects of Age on the Human Constitution.—A special Introductory. By CHARLES CALDWELL, M.D. Louisville, 1846; 8vo., pp. 27. (From the author.)

Catalogus Collegii Bowdoenensis. 1846–7. 8vo., pp. 55.

Lecture, Introductory to the Course on the Theory and Practice of Medicine, in the Medical Department of Pennsylvania College. Session of 1846 & 7. By W. DARRACH, M.D. Phil. 8vo., pp. 24. (From the author.)

Medical Report of the House of Recovery and Fever Hospital; Cork-st., Dublin. From 1st Jan., 1844, to 31st Dec., 1845. By GEO. A KENNEDY, M.D., etc. Dublin, 1846. 8vo., pp. 60. (From the author.)

Valedictory Address to the Students of Indiana Medical College. By M. L. KNAPP, M.D. Chicago, 1847. 8vo. (From the author.)

The following Journals have been received in Exchange:—

The London Medical Gazette.
The British and Foreign Medical Review.
The Provincial Medical and Surgical Journal.
The Dublin Medical Press.
The Dublin Quarterly Journal of Medical Science.
The London and Edinburgh Monthly Journal of Medical Science.
The Illinois Medical and Surgical Journal.
The New Orleans Medical Journal.
The Boston Medical and Surgical Journal.
The Western Journal of Medicine and Surgery.
The St. Louis Medical and Surgical Journal.
The Philadelphia Medical Examiner.
The Southern Journal of Medical Science.
The British American Journal of Medical and Physical Science.
The Southern Journal of Medicine and Pharmacy.
The American Journal of Pharmacy.
The American Journal and Library of Dental Science.
The Buffalo Medical and Surgical Journal.
The New-York Annalist.
Western Lancet.
Missouri Medical and Surgical Journal.
Stockton's Dental Intelligencer.
La Lancette Canadienne, Journal Medico-Chirurgical.
New-York Medical and Surgical Reporter.

ERRATA.

On page 370, in the notice of Annals of the Lyceum of Natural History, 2d line of the article, for "Grodeph Agous" read "Geodephagous."

THE NEW YORK

JOURNAL OF MEDICINE.

FOR MAY, 1847.

PART FIRST.

Original Communications.

Art. I.—*Remarks on the Use of Galvanism in the Treatment of certain Nervous Diseases.* By H. P. Dewees, M. D., of New-York.

Until late years the diseases of the nervous system have not been well understood, owing to the imperfect condition of physiological science of the time ; but since this branch has been so attentively entered into by the first intellects of Europe and of this country, rapid strides have been made towards their elucidation ; and although the certainty of remedial treatment has not kept *pari passu* with the improved knowledge of the anatomical distribution and functions of the nerves, yet a very decided step has been gained, if only in putting to flight the barbarous empirical treatments so universally employed prior to these investigations. The field, however, has been entered only by a few, and thus far their labors have not been rewarded by as abundant a harvest as their efforts deserved ; yet they have so prepared the ground and cleared away impediments, that further advances must be more richly remunerated.

To the prejudice of advancing knowledge, there has been none greater than is to be found in the arbitrary classifications met with in many of the works on materia medica, the student becoming familiarized with the divisions—in many instances formed without previous clinical observation--long before he is made acquainted with the anatomical appearances, functions and offices of the various parts of the body. It is almost in vain, or at least a Herculean labor, when free from the schools, that he endeavours to shake loose the shackles so early and closely riveted. How frequently do we see this in others, and find it in ourselves. Hence, the *name* of a class of remedial agents is so frequently substituted for, and indoctrinates the pathology of a disease. And, not only to the medical man does it become a bane, as regards the administration of remedies, but also to the patient, who hearing the name of the agent to be employed, imagines it salubrious or lethiferous, according to the established nomenclature of the day. It is to the advances made in pathology, physiology, and organic chemistry, that we must look for a more definitely-descriptive division of the materia medica, the bedside being the place for the study of the results of administration, and action of the various agents over diseased conditions.

Before touching on the subject of certain neurotic disorders, and their treatment, it will be necessary for me to say a few words relative to the holden notions of some of the remedies mostly used, and to define the views in opposition to their usual classification, by reference to certain physiological actions and pathological changes.

At the schools we are taught that this remedy is a sedative, this a stimulant, and the other a tonic; or, that some are stimulant and sedative to the same part, according to its state, or to the quantity employed. These doctrines being well impressed, the student proceeds to hear a lecture on the practice of physic, and is continually confused to find a remedy just styled a stimulant employed as a sedative, and then hear discussed the pathology and advised in the administration of agents, the physiological action of which he has been just taught is the very opposite to the one required.

As an instance of this we will take the condition termed "congestion," or where there is an almost complete arrest of the capillary circulation of the part. After general or topical bleeding, if called for, we are told to employ "*counter-irritation.*" The student naturally says, of course the organ congested must be in a state of *irritation*—(the very contrary of which mostly exists)—or why should it be necessary to resort to a *counter* agent? Hence, to him, the name of the remedy becomes the pathology of the part affected. And so he goes on to apply contra-stimulants, etc. After this is well jumbled together in his puzzled brain, he assumes the practice of medicine, and apparently the list of mortality is not much lessened by his being "late from the schools."

Had the remedy, styled "counter-irritant," been called a nervo-stimulant, a ready rationale would have offered itself. The theory I wish to establish is simple, and is the result of practical observations; whilst by it can be dissipated many of the difficulties perpetually starting up, and both pathology and physiology consort with it. The outline must necessarily be short.

The red circulation is carried on by arteries, capillaries, and veins, the heart being a *hæmometer*, as it were, of its just performance, measuring the changes as they take place, and in its turn reacting on them. The action of an artery is contraction, owing to the elastic property of its middle coat. The arteries of the trunk, neck, and head, possess a nervous reticulation derived from the sympathetic; those of the lower extremities from the spinal marrow. The capillaries, as asserted by Schwann, are the terminations of the arteries into the commencement of the veins, their proper tunic being apparently a continuation of the middle and inner arterial coats, and from analogy, together with their highly impressive condition, may be justly supposed to be invested with nerves from the same source, influencing their contractility.

We will now take a case of simple inflammation, and it is necessary to remember the important remark made by Müller, that "Inflammation is not essentially a state of increased action, but is compounded of the phenomena of the *local injury*, a tendency to decomposition in the part, and increased vital action striving to balance the destructive tendency." At the first stage of inflammation, as seen under the field of the microscope, *contraction* of the vessels with a more hurried circulation in the part ensues, on the principle observed in reducing the calibre of the jet-pipe to a hydrant or engine. After a period, the duration of which varies according to the extent and nature of the lesion and the energy of the part, the vessels begin to *dilate*, the tumult subsides, and one, two or more globules become stationary for a greater or lesser time, and so on, till the hæmastasis is nearly or quite perfect, and the state called congestion in its various degrees presents itself.

In the mean time, the vessels carrying the white corpuscles also become obedient to the same law, and dilate sufficiently to admit the smaller red globules or the *debris* of coloring matter from the broken or dissolved blood discs. A fresh source of deranged action is soon established, till the part is completely infarcted with blood or its component portions, inflammation by *extension* resulting. The serous portion may now infiltrate the cellular texture, or be poured out as in pleurisy, the *cohesive* power of the coats of the vessels becoming weakened, and exudation necessarily following. The normal nutrition of the part at first disordered, now becomes more and more defective, and the *chemical changes* of disorganization commence, the pathological condition varying with the progress of the more or less perfect arrest of the circulation. The parts being over-distended with delayed blood, the walls of the vessels are rendered more and more tenuous, their complete disorganization resulting by progressive absorption; or the plasma of the blood may exude, giving rise to granular formations, filiform or pseudomembranous extensions. On the borders of the congested patches the obstruction to the circulation institutes fresh irritative action, and as above observed, inflammation by extension ensues, involving more or less the neighboring parts, and impressing on them a condition similar to the originating cause. It is in these very cases the rationale (by referring to what has been said above,) of that treatment can be seen, in which certain remedial efforts are directed towards subduing or arresting the *increasing* inflammation, whilst due regard has to be paid towards the removal of the congestion by other efficient means.

We have now followed out in a rapid manner the changes from a sound to the diseased state; the next thing to be entered into, is the reason why such a condition from some given cause should ensue. In unravelling this we easily approach the indications for treatment, and establish a general law.

Above has been stated the anatomical distribution of nervous fibrils upon the coats of the arteries and capillaries, in the upper portions of the body, derived from the sympathetic, and in the lower extremities from the spinal marrow. It will be necessary to remember that three distinct fibres constitute the sympathetic, viz., organic, sensific and motific. In the beginning of an attack, the morbific cause may be either powerfully *exciting* to the nervous system, its duration varying from a short to a longer period; or it may be that the shock is instantly distributed, the primary charges being scarcely begun, before the secondary ones ensue. If the exciting cause—no matter what—be merely sufficient to induce a violent and continued action of the nervous power, the vessels begin *to contract* (as seen in the early stage of inflammation), and the capillary circulation becomes more rapid and tumultuous, attended by local or general heat, whilst the heart throbs with quick-propelling strokes, the pulse becoming hard and resisting. After a time, the vis nervosa being exhausted, the vessels become less tense and *incline to return to their normal* state, and provided the exhaustion be not too great, the circulation suffers but little or no further derangement, and a return to health takes place. But if, on the contrary, the prostration of nervous power be greater, the vessels no longer resisting become dilated, the circulation within the capillaries grows more and more sluggish, and the condition known as *congestion* presents itself, its extent varying according to the loss of nervous force and its duration. The states termed by old authors, *active* and *passive* congestion can now be understood, although the first is somewhat miscalled, and does not record the exact condition of the parts at the time.

The indications for the removal of these states of congestion can be readily distinguished; and that such actions ensue as above set down, is confirmed by the treatment found successful in restoring the parts to their normal condition. Let us follow this out. Suppose a case, for instance, in which the exciting cause is cold. Here the cause affecting the peripheral nerves is translated by centripetal action to the lungs, etc. The sudden constriction of the cutaneous vessels is reflected within, a larger proportion of blood than is natural being forced on the inner organs, and the primary stage of inflammation, or the contraction of the vessels ensues, the blood darting through the capillaries with greater rapidity as explained above by reference to the reduction of the orifice of the jet-pipe of an engine, to say nothing of the accelerated motion caused by the increased deoxydization of the arterial blood. If called at this period, the practitioner in common routine practice, bleeds from the arm, or locally by cups and leeches, thereby reducing the amount of circulatory blood, (as it were, allowing the disordered organ to rest) and withdrawing a certain amount of nutritive fluid from the nervous centres, thus directly bringing about the secondary stage, or that of return of the vessels to their normal dimensions, and also by reducing the number of carriers of oxygen—the blood corpuscles; the skin becoming moist and the pulse less tense and frequent. If this stage run no further, or in other words if the nervous power does not fall much below the natural standard, the disease is broken up and a speedy return to health may be predicted. But if the nervous decrement be greater than this, the ordinary stage of *pneumonia* for instance arise, the vessels dilate more and more, the capillaries become choked with the delayed globules, whilst the exudation of the plasma of the blood into the tissue of the lungs and air-cells ensues, and the condition termed red *hepatization* presents itself, the granular deposites varying with the intensity of the previous inflammation, and the quality of the effusion. The secretions becoming changed, chemical actions ensue, and the organic alterations rapidly follow. Here as in all other grave disorders it is difficult to sift out the morbid actions from the sanative efforts exerted by nature; or, as expressed by Müller, to distinguish the phenomena of the *local* injury, and the tendency towards decomposition of the part, from the *increased vital* energy striving to balance this destructive tendency. And hence so frequently is seen amongst injudicious and inexperienced practitioners, the direction of every remedial battery against these very recuperative efforts, instead of the disease.

Such being the condition of the parts, what treatment is found successful? We will take sthenic or acute pneumonia. As before observed, if called in at the early onset of the attack, blood is taken from the arm—I refer to the ordinary practice—or from the chest, by leeches. This serves a double purpose, viz., mechanically lessening the quantity circulating through the inflaming and constricted vessels, and directly restricting the nervous excitement, whereby the rapidity of the current and the chemico-organic changes are diminished. Frequently the disease is thus cut short, and, as many times seen in the country after a very large depletion, a stimulant is given a few hours following, under the idea of producing a "sweat." Hot gin or whiskey toddy is mostly the article resorted to, and the patient, if of strong constitution, is about in a few days. How does this consort with the theory proposed. The effect of the bleeding has been already explained, and it is only necessary to recal that by the decided impression of the loss of blood upon the vessels themselves, and the decrement of the energy in the nervous reticulations, the commencement of the second stage of inflammation is directly brought about, viz., the return of the capillaries to their normal calibre. If the bleeding has been carried beyond this point, the vessels become dilated, and thus we can see how a copious bleeding in many instances has been the influential agent in *bringing on* the second stage of pneumonia in a comparatively short time, by inducing "passive" congestion. The stimulant action of gin, whiskey, etc., can now be resorted to, to cause the contraction of the dilated vessels by supporting the lagging nervous power, and probably by the chemical action of the carbon in the alcohol, the combustion of which ensues in preference to, or restrains the too rapid destruction of it in the structures. In hospital practice the general condition of the patients admitted does not demand exceedingly active treatment, owing to the class of subjects, their constitutions for the most part being lowered by excesses or poverty; in these, typhoid pneumonia occurs frequently, and any detraction of blood seems badly tolerated, the nervous power demanding decided support from stimulants, and dietetic adjuvants towards increasing the richness of the plasma of the blood.

We will now turn to the effects of the Hercules of Marryatt and Rasori—tartarized antimony. By many practitioners this preparation is relied upon in preference to depletion, even in the early stage of pneumonia, and doubtless with advantageous result; how can this consort with the theory laid down? The first dose of emetic tartar commonly nauseates or produces vomiting; after a time *tolerance* is gained. Here, by the constitutional effect of the remedy in the first stage, the representative action of bleeding is obtained, viz., the reduction of the nervous excitement causing the constriction of the vessels, by the nausea or vomiting. If the exciting cause has been powerful and the individual plethoric, the remedy is continued in comparatively large doses (accompanied with its nauseating effects), to prevent the access of the nervous excitement, and allowing a freer channel to the circulation by its action on the capillaries. The nauseating or emetic effect is not always the essential agent required, for it is equally successful in other cases without these effects presenting themselves. This can be explained by the greater tolerance in some subjects, and is also owing to the period of the disease, and the *quantity* employed. In large doses it is sedative by the effect on the pneumo-gastrics, causing repeated vomiting; but in *small, repeated doses* it is stimulant. Nor does it differ in this from many other remedies, in which the quantity regulates the constitutional action, viz., being depressent in large doses, and stimulant in small.

In the fully-formed *secondary* stage of pneumonic inflammation, where benefit has been derived by the frequent administration of antimony in *small* doses, the true action of the remedy must have been stimulant, contrary to the received ideas, the progressive prostration being held in check. By reference to the pathological condition this must make itself plainly evident, so that the same remedy in different proportions acts differently, being sedative or stimulant according to the quantity, and from virtue of this does emetic tartar become such a powerful adjuvant in the various states of inflammation or congestion, its employment requiring accuracy in diagnosis of the pathological condition of parts affected. Where severe vomiting has been caused in the secondary stage of pneumonia, as known to all, great difficulty arises in effecting a cure, and the third stage of suppuration, or yellow hepatization, is ushered in more quickly. And the reason of this must be obvious, viz., the loss of nervous power and greater engorgement, while the blood and the assimilative actions are reduced in their vitality, According to the doctrines so generally taught, we employ tartar emetic as a *debilitant*, and are ordered to continue it in the secondary stage of pneumonia, where in reality this stage is owing to or accompanied by debility of nervous power, as evidenced by the dilated and engorged vessels. The term, then, of "arterial sedative" becomes the pathological index of the parts, the very contrary of which is called for. It is well known to every medical man, that it is not their aim to lower the heart's action *below* the normal rhythm, but merely to regulate it to this standard; it would hardly be fair to suppose that the vessels being already in a *relaxed* state, and the impediment to health partly consequent on this, they would wish to *debilitate* still more, if tartar emetic was a sedative or debilitant *in the doses employed*. Yet there are many who have and do use this remedy under this single-sided notion of its action, thereby evidencing the working of the old leaven of early education, and their perpetual want of regard to the pathological changes and consequent remedial requirements, so constantly under their eyes.

Calomel and opium, as established by Hamilton, being in many cases found serviceable in inflammations, after or together with blood-letting, their action can be well understood; and hence have arisen the schisms respecting the administration, especially of the latter, in pneumonia, its advocates not having clearly pointed out the physiological intention of its administration. We can now understand, that when given in *large doses* after bleeding, in the early stage attended by high nervous excitement, it served to establish the cure by calming the constricted vessels by its sedative action on the nervous centres; and that when administered in the second and third stages in *small* but repeated doses, it acted as a nervo-stimulant, thereby inducing the action required for the restitution of the organ affected, its *sedative* influence being carefully avoided. The lungs being impaired in the performance of decarbonizing the blood, the brain becoming more and more oppressed by its retention, the action of the associated organ—the liver—is invoked, and the specific influence of calomel aids the design.

Let us now pass to another portion of pneumonic treatment, viz:—*counter-irritation*, etc. In the various experiments instituted by Andral and others on the blood, the *fibrin* invariably was found increased in inflammation, and when found to exist in an undue proportion it might be safely asserted that inflammation somewhere was present. From this fact we can readily infer why *blisters* become such powerful adjuvants in the cure of many diseases, the physiological action of *fibrin* in the support of nutrition being so clearly defined by all writers. Therefore, in place of *counter-irritants*, they should be called *nervo stimulants*, whilst, beside their powerful action over the distal nervous extremities, they really serve to increase the almost exhausted *pabulum vitæ*, the fibrin, thereby by artificial inflammation on the surface aiding to support life, till reaction is awakened. And lastly, we can comprehend why it is, that when blisters are employed at the commencement of *acute* inflammations they serve to add to the existing phlogosis by increasing the fibrin and local nervous energy which is already in a plus quantity. To call them merely revulsives or evacuators of serum *explains* nothing, nor defines any general principle for their employment. In broken-down habits their physiological actions can be readily inferred, or even in those cases of chronic abscess and happening in subjects of comparatively good condition, but where *local atony* is present and consequential assimilative depreciation.

I have at this present time a patient suffering under stricture of the œsophagus, apparently produced by scirrhus. The emaciation and debility is extreme owing to the difficulty of swallowing even the smallest quantity of liquid nourishment. By slightly vesicating with a small blister the strength becomes greater, and the sanguinolent expectoration becomes checked, owing to the increase of fibrin in the blood by the excited inflammation. The experiment has been repeatedly and fully tried, by leaving off the blister, when the strength declines to its lowest ebb, and bloody transudation ensues.

Setons and issues hold a somewhat different position in the scale, although on their first introduction there is always more or less irritative or stimulant action set up. This generally subsides in a short while, and is not often in reality called for, though the doctrine for the general employment would lead us to the contrary. The chief reason for their use is, the withdrawal of a certain amount of nutritive supply so as to *proportion it to the organic force of the injured part.* In the inter-cranial injuries frequently inducing paralysis, a seton is in many cases passed through the nape of the neck; and in some instances is attended with favourable results, in others, with injury or no benefit. And the reason is obvious. Where the constitution is fair, and the brain is not so greatly impaired that its reparative force can be sustained by lessening the tide of nutrition (as it were) flowing to it, then a drain from the vicinity can be established beneficially, in order to make the supply commensurate with the demand.

When the ends of fractured bones do not unite, the periosteum and medullary membrane not being greatly injured, advantage is taken of their *stimulant and irritative* action, in order to invite ossific deposite, the molecular assimilation being rendered more active. After this is well established the seton can be withdrawn, though it is generally retained. But here the seton is passed through the part itself, whilst in other cases it is only near or at some distance from the seat of lesion. No one would think of placing one in the thigh or back, for disunited fracture of the lower leg, with prospect of success, unless the separation was kept up, by the constant washing away and dissolving of ossific material by over-secreted pus, and then only in a patient of sound constitution.

I will pass to the remedial powers of *Galvanism* in the different forms of paralysis and other disordered states, and shall embrace the subject in as few words as possible.

Owing to the difficulty attending its administration in the early period of its discovery, the trials of its efficacy were greatly limited; and even at this day, when the world is agog with the representations of its wonderful power in curing all diseases under the sun, there has been but little advance made towards its rational therapeutical exhibition, based on physiological principles, or the observation of its effects over certain pathological states. Some years ago I was induced to make a trial of its vaunted powers, in order to be an eye-witness of its agency in the cure of the multitude of diseases accredited to it. The apparatus I commenced with was Pike's galvano-magnet battery, capable of easy adjustment in the regulation of the power. These instruments have been so multiplied, that a description of them would be unnecessary. Disappointment in effecting the radical changes desired, caused me to study out the particular cases in which such a form of applying galvanism would prove beneficial, or where it would be injurious. The *machine* is now restricted in my practice to its power as an *exercising* agent, limiting the duration of its application as may be required by the necessity of the case. To those wishing such an instrument I can recommend the manufacture of Benjamin Pike, jr., or a still more convenient and elegant form, made and sold by D. C. Moorhead, 182 Broadway. The aim of all the mechanics in the construction of their different patents, has been to increase the number of successive shocks in a given time, which in a therapeutical exhibition, for the purpose of their exercising power, should be the very contrary; as any one familiar with their use must have observed, that so far from the muscles receiving the alternate state of contraction and relaxation, they are thrown into a state of great rigidity, the alternation not taking place, as observed in the natural exercise of the parts. This, however, can be better managed by the rack on the side of the instrument. In all this, however, we have but the piecemeal exhibition of the galvanic current as regards its chief remedial value, as the changes which ensue are owing to *electric causation* and not to *the shock*, which, as above observed should only be employed where exercise or a sudden stimulus is deemed requisite. Unfortunately, there exists in the minds of most men, that whatever is powerful, must be more beneficial than anything that is not so strongly manifested to the senses. The experience of trial is only necessary to decide the contest. I therefore prefer and use the *continued galvanic* current, dispensing with the magnet entirely; although by a very simple manipulation the current can be interrupted or continued at pleasure, so that if requisite the spasmodic rigidity or alternate actions of the muscles can be readily obtained. To any person using galvanism, I would again observe, that the degree of benefit must not be thought commensurate with the muscular tension; and this physiological fact should be strongly impressed, that *the organic force is always exhausted by the over-exercise of the functions.*

From these and the remarks previously made in the forepart of this paper, the treatment required in paralysis of the different orders and other neurotic affections, can be readily deduced, and a less empirical employment of certain remedies (and especially galvanism,) can be established.

The batteries preferred by me are those known as "Smee's," formed of two plates of amalgamated zinc, and a middle plate of platinized silver. In the construction it is an object to regulate the size of the plates, in order to combine sufficient *intensity* with *quantity*, where but one set of batteries are employed. When the muscles are to be solely acted upon, their *exercise* being the desired object, quantity is requisite, but where the organic forces or nutrition of the part are required to be stimulated, intensity is necessary. The passage of the current downward or upward makes every difference. In the paralysis resulting apparently from lesion of organic nerves, or where conjoined with loss of power the arm or leg dwindles, the negative pole should be rubbed over the surface, whilst the positive is attached to the receiver. On the other hand, in *muscular* paralysis, (in contradistinction to the other, which I term *organic paralysis*,) the passage of the current is to be reversed. The investigations of Mattucci showed that there were two currents in the body, and from my observations in practice I am persuaded of the truth of the assertion. One being the muscular and the other the organic current. The results of treatment consort with this, as I find in "organic paralysis" the benefit from the passage of the positive galvanic current upward. Whilst in muscular paralysis a contrary direction is to be preferred. This has been satisfactorily shown to many of the medical gentlemen who have visited me to witness the truth of the statement. The sensation is perfectly distinct also. My usual mode of making this evident, is to place the hand of the person in a copper receiver containing salt water, and having the positive pole attached. By rubbing the exposed back of the hand or arm with the opposite pole a smart tingling or burning sensation is produced, increasing according to the number forming the series, and frequently producing a small papular or pustular eruption. By reversing the poles the burning is scarcely perceptible but the muscular contractions of the fingers are stronger. We may then say, that the nervous nutritive functions ensue more rapidly from the capillary expansions, on the surfaces of the various organs, the tide as it were being from the peripheries upward; whilst muscular propagations take place from centres downward. When the ulnar nerve is struck, the propagation of its influence is downwards to the extremities of the fingers, but in epilepsy, the *aura* always travels upwards. Epilepsy I consider to be the result of disorder in the organic nerves, the nutritive functions being disturbed. On post-mortem examination of epileptics, in some, there has been but little discovered as cause of the disease, where due regard has been paid to the discrimination of the effects of the attacks themselves, in others, the disorder of nutrition is evidenced by the growth or deposite of bone, etc., in anormal situations.

Owing to the nature of this paper, I am forced to be brief and somewhat desultory, touching lightly here and there on subjects, any one of which would form a separate subject for longer discussion. My object is not only to show where a galvanic current, of *proper force*, can be remedially used, but to establish some general principles on which *treatment* in various diseases can be based, not only by the battery, but by the employment of the different articles of the materia medica. When the nature of a remedy is *known*, much can be gained in the study of those cases in which it formed the curative agent. In galvanism we have this, being properly termed a nervo-stimulant, if then the cases in which this has been successfully employed be duly studied, (referring to the physiology and pathology of the part affected) great light can be thrown on the nature of that or those remedies, over similar states, through whose action the return to health was gained. In so doing, the real classification of medicines would be arrived at and the confusion now existing would be put at rest, whilst the *names* of remedies would not so frequently be thought to indicate the pathology of the disorder. The theory of the practice of medicine can never be rationally or instinctively based until it harmonizes strictly with physiology, pathology and *treatment.*

I will now proceed to "medical galvanism," and point out in a few words, as far as my experience goes, in what cases and under what intentions it should be used.

Nature constantly indicates the mode for curative actions, and the more closely we imitate and interpret her proceedings, having a careful regard to the discrimination between the sanative efforts and the diseased actions, the more certainty will be gained in the result of treatment. We will take a case of paralysis affecting the arm, in which the muscles become flabby and apparently lengthened from their inherent contractility being impaired, whilst the circulation through the tissues is lessened, owing to the impoverished nervous supply, all *voluntary* motion being lost. Friction and strong liniments are applied as vivifying stimuli, in order to accelerate the affinities, (vital or chemical,) by which the due composition of the tissues is maintained. In this manner the organic force is increased, and the influence so given is steadily generated. After a time the muscles become more firm, by the addition of real contractile particles, and the arm begins to recover its lost power, nature carefully regulating its action to the improving condition of the tissues. For in these cases, where recovery takes place, we do not see those violent muscular contractions and spasm ensue, as in simple "muscular paralysis," but the muscular changes and additions are quietly induced, the movement in the arm being at first very slight. In the *continued galvanic* current we have a representative of this reparative force; or in other words, by it the combinations essential to the nutrition of the affected part are produced and sustained, real muscular and other component particles being added. To the vital stimulus of electricity must be attributed the healthful organic changes; but as these are not effected very rapidly, the aim should be not to consume the now enfeebled organic force, by any *over-exercise of the functions.* And this must ever happen when the *machines* are called into use, before these very changes take place.

On the other hand, much benefit has been and will be derived from the *interrupted* current, in those cases where the muscles remain solid, their nutrition not being interfered with, but apparently increased. Here the *functional* exercise of the limb is called for, as a *waste of organic force is demanded in proportion to the supply.* The objective signs, therefore, are of much importance in the treatment, as in some cases of hemiplegia we have the two states existing at one time—the arm being flaccid and dwindled, whilst the leg is firm and even, sometimes larger than that of the sound side. In these cases the brain is mostly implicated, (though not necesarily so,) as the face is frequently paralyzed, and the tongue protruded towards the affected side, the mental confusion being more or less perfect. The *local* treatment in these cases, by the galvanic current, must be adapted to their relative states. The arm must not be shocked, but a gentle *uninterrupted current* should be made to traverse it, the negative pole being applied over the spine and arm, whilst the positive is to be attached to the receiver in which the hand is placed. The leg can be exercised by reversing the current, as above explained. A Pike battery can be used, or the current can be broken at intervals, when using the Smee's batteries. I prefer *pure* galvanism, if it can be obtained, to the exclusion of the magnet. By means of a sponge tied to a plate or handle of silver or other metal, and wetted with salt water, the surface can be wiped over, in order to stimulate every portion alike. The pulse will be found to rise, (unless the application is continued too long,) and the skin become red. In cases of exceeding prostration, where the pulse was extinct, I have witnessed a return of impulse take place in a few minutes, and the sense of weakness fully as well overcome as by the administration of brandy or wine.

The most sensibly-striking phenomena resulting from the application of the continued galvanic current, are the *increased activity of the secretions*, and the reduction of the engorged parts. In all cases of congestion with infiltrative plasma, the normal nutrition of the part is interfered with, and if chronic, the parts are said, in common lanlanguage, to be hypertrophied, although no real nutrition takes place, but an interstitial deposit ensues, increasing the *bulk* of the organ, but not adding any thing to its structural composition. In galvanism we have a ready means of dissipating most of these congestions, and the actions ensue as previously described, viz., the stimulation of the nervous reticulations of the capillaries through the distal extremities, and the consequent return of the vessels to their proper calibre. The reparation of the parts ensues *pari passu ;* the absorption of the deposit keeping up with the increasing assimilative process. To measure this disposition to renovation, requires experience and caution, in order to adjust the force, lest the waste by absorption be greater than the plastic renewal, and that the excitability of the part may not become deadened by too long-continued and frequent application. In this knowledge of employing a stimulant, as electricity and others, *to* and not *beyond* its power of renovation, consists the skill of one practitioner over another using the same remedy ; the one invigorating, whilst the other causes a tumult in the system, that not only fails to strengthen, but may prove fatal.

From the peculiar action of an intense current, I have proposed its use in those severe exanthematous cases, where the eruption has been suddenly suppressed or has failed to appear, and which are always attended by great nervous depression, having resisted the ordinary rubefacient remedies.

And in those cases of passive hemorrhage from vascular inertia, the contractile power of the capillaries being increased by the stimulus, as is witnessed in certain uterine bleedings. Of course it will be understood that the use of other remedies should not be superseded by the employment of galvanism, but that I am merely stating wherein it may be found a valuable adjuvant. I early proposed it to restore the nervous power in exhaustion from hemorrhage as witnessed after childbirth, and I am glad to state that it has succeeded, where other stimulus was of no avail.

As an emmenagogue, in cases of simple obstruction or retention, it is a *most certain and powerful remedy*—and again, where the flow has been immoderate, I have received signal benefit from it; the reason is obvious, upon reflecting on what has been said. I have twice favourably resorted to the continued current in threatened abortion, apparently resulting from irregular nervous supply to the uterus, the contractile efforts being calmed by it. Such cases require some experience in being able to discriminate where it would be indicated or prove injurious.

In the most frightful case of tonic spasm from utero-spinal causes, the *continued* current has, in my hands, proved a perfect charm, as witnessed by our distinguished townsmen, Drs. Mott and F. U. Johnston. In this extraordinary case, the *interrupted* current proved highly injurious, causing convulsive actions, whilst by the simple galvanic current, the spasms would be immediately broken. The recital of this case would require more space than is allotted me, but will, at some period, be fully given. In tonic spasm, the patient is generally supposed to be under some great nervous excitement, causing undue muscular contraction or rigidity, according as the flexors or extensors are implicated. According to my views and practical observations in these cases, the very opposite condition presents itself. The flexors and extensors are antagonistic, and their nervous supply may be said to be in like position. Where flexor spasm ensues, the muscles so acted on have only their due supply of nervous power, whilst the extensors are paralytic from nervous loss, and the muscles in such a condition may now be termed in a *plus* state, to the extensors. A galvanic current *prefers* a passage through those nerves in a *minus* state, as it prefers the conduction through *wires* in similar electrical condition. Owing to the passage of the current through the extensor nerves, a return of nervous supply in them is invited, and the *resolution of the spasm ensues when the equilibrium is established.* This has been satisfactorily proved by me to other medical men. On the other hand, where the contrary state exists, viz., extensile rigidity, the members being straightened with their utmost force, the flexor nerves are in a *minus* state, and the breaking up of the attack ensues in like manner when the nervous equilibrium is restored. I have known both these states exist separately, the *consciousness* of the patient being retained. As this is a disorder of muscular nerves, the galvanic current must be applied in such manner that it passes *from* the spine *to* the extremities in the direction of their nerves. I will here call attention to the *excitement consequent on nervous exhaustion*, and but too frequently treated by depletion. In those cases where brandy, opium and other stimulant sedatives could not be given, I have found success from the application of galvanism, proving the correctness of the views of those who have espoused the treatment by the above-named stimulants.

In chronic constipation from enteric inactivity, the result of the application can be readily made out by reflecting upon what has been said of its stimulant power. In many cases it has succeeded unaided by other treatment. There is in most all cases of chronic constipation, excessive dryness, not only of the fæces but of the mucous surface of the intestines. This state is speedily remedied by the current, the secretion of the bowels being announced in a few days. Where the nervous prostration is very great, and the person be of a relaxed leuco-phlegmatic habit, the gut is frequently found in an opposite condition, being relaxed and coated with a thick gluey mucus, the presence of fæcal matter not being noticed by the bowel. After a few days' use of the battery this becomes remedied in both states, the intestine is stimulated, and a secretion of fresh healthy mucus takes place, with increased propulsory powers. That the increase of the secretion ensues can be readily proved by placing the plates on the opposite cheeks, when the saliva, with its peculiar acidulous taste, (like from slight decomposition,) will be found to flow copiously into the mouth. By reflecting on this and what has been above said, we can deduce this general principle, and its application, that by nervo-stimulation the secretion of a glandular organ can be excited, and that when an organ is inflamed or has an undue nervous supply, its secretions being locked up, that stimulation will prove injurious by addition to the inciting cause, and hence the treatment must be depletory or directly sedative. We can also see plainly the folly of those who employ depletion for the restoration of the secretions of an organ already below par; or who hope to unlock the secretion of any gland invaded by inflammation by *stimulant* remedies.

In the resolution of indurated tumors and glandular swellings I have received great advantage from a galvanic current properly proportioned and from my limited observation, I should think it one of the most potent remedies in the reduction of glandular abdominal enlargements happening in scrofulous constitutions.

About two years ago, I was led to experiment on it in cases of over-mercurialization, under the idea of withdrawing the metal from the system, I tried the first on an Irishman, who had, in the course of a fortnight, taken 24 grs. of the bichloride in combination with hydriodate of potash. In the course of half an hour, I was convinced I had precipitated the metal on my receiving plate. In the second case, I was similarly successful to all appearance. I hope shortly to be enabled to prosecute this more to my satisfaction, and will report if found successful.

To sum up, I will add wherein I have derived advantage from the employment of galvanism. In congestions of the mucous membrane of the throat and fauces. In the early stage of tonsillar enlargement. In chronic laryngitis. In deafness, arising from chronic congestion of mucous lining of the Eustachian tube, etc., from deficiency of nervous energy. In some of the kidney and bladder diseases, from the same cause. In some cases of rheumatism, facial neuralgia, otalgia, etc. In chronic erysipelatous inflammation or congestion of the face. In headache. In dyspepsia, owing to imperfect nervous action. A singular effect is produced after an over-hearty meal, by applying the positive pole over the cervical region of the pneumo-gastric, and the negative over the stomach, when relief is almost immediately afforded.

In several cases where adhesions from periostitis had taken place, I have succeeded in breaking them up; the principle consisted in stimulating the part by which the capillaries and lymphatics should deposit, whilst the veins and absorbents should carry away the old matter.

I have now two cases of atrophy with paralysis of the limbs under charge. In one I have succeeded in inviting nutritive action, the size increasing with return of power. In the other, like changes have gone on with surprising activity, considering the length of time since the beginning of the attack, viz., sixteen years. In this case the right leg is affected, and after having stimulated the muscles by the passage of the *current upwards,* I place on the limb a large tin boot with an elastic band on the top. By means of an exhausting syringe, the air is withdrawn, and the blood is invited into the tissues, in order to take advantage of *the increased organic power* received by the passage of the current. The success attending the operation bears out the intention and reasoning on the subject. In this case, can be beautifully shown the difference of the two poles. By passing the positive current from the spine to the foot, great muscular contraction results—whilst by reversing the order, but slight tension is excited, the surface becoming immediately red, etc.

As regards the question whether the nervous power and galvanism be identical, it may be set at rest as far as remedial application goes. I do not consider them essentially the same, but attribute to the electric passage through certain disordered nerves those nutritive changes necessary to the generation of nervous power. It seems to invite a return of nervous action in the nerves, as it causes the iron to become magnetic, although free from it previous to its passage.

In some cases of amaurosis I have witnessed benefit from it, where other remedies entirely failed.

[To be continued.]

ART. II.—"*Blighted Fœtus,*" a Paper read before the Troy Medical Association, February 25, 1847. By THOS. W. BLATCHFORD, M. D., President of N. Y. State Medical Society.

THE specimen of either "Blighted Fœtus," or "Superfœtation," and which I do not pretend to decide, noticed in our minutes, as having been presented by me, was obtained under the following circumstances.

On the 10th inst. Mrs. W. was delivered of a healthy full-grown child, weighing eight pounds, after a labour of twelve hours, during which nothing unusual occurred, except that the labour was twice as long as her usual labours had been. The placenta followed immediately. It was large and well formed. After-pains being severe, an anodyne was administered, and I left the patient apparently comfortable about eight o'clock, P. M. The next morning, when I made my usual call, the nurse with evidently-suppressed alarm, said she had something curious to show me, which came away about three o'clock, attended at the time with a good deal of pain. She said they had done nothing with it, but had kept it just as it was when it first came away, in order that I might the better judge of its nature. Both patient and nurse seemed anxious to know what it might be. It appeared, however, perfectly to satisfy their curiosity, when I told the patient that she came very near having twins,—that some lucky freak of nature had saved her the trouble of taking care of two babies instead of one. "Good heavens! ain't I glad," she exclaimed. I learned from her that she had always expected to have twins from the first, that her mother was *twice* confined with twins; her husband's mother nad twins, and she herself was a twin. I inquired of her if anything different had occurred to her during her pregnancy, from what she had experienced on former similar occasions. She said she did not at all suspect herself to be in the "family way," until she felt life, and then it was some time before she could believe it, for her "monthly turns" did not discontinue until one or two months after quickening, and once or twice she had been "very much so." She did not remember at what particular period these profuse discharges took place. It should be remarked that Mrs. W. had lost her last child within a week after its birth, from imperfect closure of the foramen ovale, and that she did not keep her milk as she was requested to do.

The specimen is about the size of a large hen's egg, with a protuberance on one extremity partially covered with hair, and the size of a pigeon's egg, or it may be said to resemble a trunk without extremities, having a head without a face. The umbilical cord is perfect, being about five inches in length, and of the size of a crow-quill, attached to a regularly-formed umbilicus. The placental attachment of course I could not ascertain, and whether it was to a separate placenta of its own, or to the placenta connected with the living child was doubtful. The nurse says that she is confident no "lump or afterbirth" came with it; she thinks she should certainly have seen anything of the kind. None has appeared since that time, and this is the sixteenth day since the accouchement.

The mass consists of *integument*, healthy in colour and consistence, *muscular fibre*, *bony matter* and *hair*. To the lower and back portion, or that portion opposite to the umbilicus, were attached thin transparent bladders of a watery fluid, resembling a hydatid formation. Upon viewing this formation, the question seems naturally to arise, may not this hydatid formation account for this production? or, in other words, was not this originally a regular case of twin conception, in which, at an early period of gestation, a hydatid, or hydatids became attached to one of the twins, and without destroying its vitality, interrupted or entirely suspended the *formative* process, causing another process to be set up, adapted to the new condition of things. I confess I am inclined to the affirmative of this question. For had it been an instance of superfœtation, that is, pregnancy upon pregnancy, there must have been, it seems to me, a distinct ovum, and we should have had the *placental mass* as well as the *chick*, although it is true this may have eluded our observation. Again, is there, in reality, any such thing as "superfœtation?" Much has been written upon the subject, pro and con, and the question, like many others connected with generation, still remains an unsettled one, and perhaps always will. Dr. Lopez read an elaborate paper upon the subject of "blighted fœtus" before the Medical Society of Mobile, which may be seen in the October number for 1846, of the Amer. Jour. Med. Sci. In it, he also treats at length the subject of "superfœtation," and although he inclines to the belief in its reality, he concludes his labours with the following remark:—"In conclusion, I will say that I have done no more than sport, as others have done, over a wide field of conjecture.—And after all, when we shall have exhausted ourselves and others, what has been accomplished? Literally nothing. Causà latet vis est notissima." I confess, however, that as yet, to my mind, there is at least one weighty objection to the doctrine not yet answered, and that is, its being opposed to the analogy of organic nature in its entire range, both animal and vegetable. I am not aware that there is any thing here to support it, even in the slightest degree. All her generating processes appear to move on under the guidance of certain fixed laws into which the possibility of superfœtation would throw disorder and confusion, at least it seems so to me.

This production which we are now considering, I am aware differs in some particulars from most, if not all the instances of blighted fœtus to which I have been able to refer since my attention has been particularly called to the subject. It differs in having the integuments of a natural colour and consistence, and also in being exempt from the almost uniformly *compressed* appearance of such productions. But this only shows that it must have been protected by an amniotic fluid, either within a membrane of its own, or partaking in common with that of the perfect child. It differs also in the entire destitution of all human features. In most cases of blighted fœtus, some vestige of arm, leg, or face, is traceable, but in this production, if we except the hair and the skin, there is nothing that would lead any one to suppose it was of human origin.

Besides the very interesting paper to which I have already referred, the August number of the same journal for 1840, contains a valuable article on fœtal diseases by Dr. W. C. Roberts, now editor of the Annalist, in which some interesting facts bearing on this subject, may be found. Likewise, in Dr. Montgomery's excellent treatise on the signs of pregnancy. To them, and kindred authors, I would refer any who desire to investigate such instances of "Lusus Naturæ," casting in this mite for what it is worth, in elucidating the great principles of medical science. While on this subject, allow me to narrate another singular case, which without doubt was a clearly-marked instance of blighted fœtus. I mentioned the case at the time it occurred, to several of my medical friends, some of whom are here to-night, and will doubtless remember it.

In the latter part of July, 1842, I was sent for in haste to see Mrs. V., who was represented to be "flowing badly." She had been married about nine years, and this was the third occurrence of the kind which had taken place; she had also given birth to four healthy children.

I found her much exhausted from the loss of blood, and learned that it was three days since the commencement of the discharge, but until within an hour, it was so slight, that she had about persuaded herself that it would pass over without amounting to any thing serious. The hemorrhage having in a measure ceased, I contented myself in strictly enjoining rest and quiet in the horizontal posture, directing cold drinks, and administering a few grains of saccharum saturnis and opium. I proceeded to examine the clot to find the fœtus, which the friends said had certainly "come away." After a diligent search, however, I could discover nothing like one. Some of the clots at first appeared fibrous in their structure, but upon breaking them down, I could not satisfy myself that any thing like either fœtus or placenta had yet passed away.

She observed the directions rigidly and patiently, and lost very little more blood, although there was not a total suspension of the discharge until two or three weeks after the period of quickening. After that period, she began cautiously to move around her room, gradually increasing her exercise until she took her accustomed degree. After this, nothing of importance occurred during gestation; she was confined at the expected period with a healthy but small child, after a labour unusually tedious for her. After the detachment and expulsion of the placenta, after-pains set in with a good deal of severity, and they were not much relieved by anodynes.

Two mornings after her confinement, I was presented with a shrivelled, dark-coloured fœtus, about four inches long, hard and somewhat distorted, as if it had been long compressed. Much curiosity was manifested by those in the room, to hear how I would account for so strange an occurrence, which I attempted by telling them in substance, that probably at the term of her expected miscarriage, she was pregnant with twins, that from some unknown cause, the vitality of this little shrivelled gentleman (it was a male fœtus) was destroyed, and of course its further development arrested. An effort of nature was then made to rid the womb of this useless burden, but being unsuccessful in the attempt, the only remaining alternative was resorted to. The womb exercising the power almost peculiar to itself, of not only preserving the mass from putrefaction, but actually converting it into an inoffensive substance, to be expelled at the period of maturity originally determined upon.

The friends, as is usual on such occasions, seemed desirous of knowing whether such a case had ever before occurred in my practice. I told them frankly I had never seen one, but that there were similar cases on record.

Since this occurrence, and especially since perusing the excellent paper of Dr. Lopez, above referred to, the question has forcibly presented itself to my mind, whether these productions of interrupted fœtal growth are not of more frequent occurrence than physicians have hitherto been aware of. Every practitioner, of only a moderate share of experience, must have met with cases of pregnancy where hemorrhage, more or less severe, occurs about the second or third month, threatening immediate abortion, but in which after watching the case with all due diligence, he is unable to satisfy either himself or his patient, that an ovum has not escaped, neither is he able satisfactorily to answer the oft-repeated and often puzzling question:—"Dr., do you think I am in the family way," and especially so, if the sanguineous discharge keep up, which it is very apt to do either constantly or at irregular intervals. But, by-and-by, certain movements will settle the question without the doctor's help, gestation proceeds to its termination, and a healthy, full-grown child is born at the period of maturity.

Now, may not some, if not most of these perplexing cases be originally cases of twin conception, in which from some unknown cause, the vitality of one of them becomes destroyed, and the uterine alternative to which reference is made above, is resorted to, in order to protect the system from further injury?

In such cases should physicians make a more thorough examination of the secundines and clots following delivery, which sometimes come away in great quantities, and are often so unceremoniously hurried out of sight, might we not oftener find a satisfactory cause of the untimely hemorrhage, and save ourselves from an occasional feeling of chagrin? I ask the question, leaving it for others to answer if they feel so disposed, hoping, however, that the hint given, may lead practitioners to make the necessary observations. Verbum sat sapientibus.

ART. III.—*Remarks on the Nourishment of the Fœtus.* By WILLIAM P. GIBBONS, of Poughkeepsie. [Submitted as an Inaugural Thesis for the degree of M. D., in the University of New-York, Session of 1847.]

1. WITH what profound interest do we regard the history of our race, and mark the great periods which have given origin to discoveries and inventions, affecting its advancement in civilization and refinement?

2. To the philosopher, that quietly labours in the fields of science, belongs the honour of presenting materials to society, which have established its improved superstructure. While his genius lends a never-failing aid to the acts of life, his researches always contribute to the intellectual wants of his race.

3. Not content with investigating the laws which govern the physical world, he detects the invisible elements of nature, and follows them through the ever-varying combinations, which impart variety of form, structure, and function of organized matter.

4. Thus we find recorded as history, that which a short time since, was considered as speculative philosophy, and inscrutable to the comprehension and wisdom of man. The laws of his own organism have been demonstrated, and the subtle play of affinities that ensues as a consequence of vital action, displayed with beautiful simplicity.

5. Every department, pertaining to the animal economy, has thus been made the subject of scientific remark: and organic chemistry, from the impulse imparted to it by a few great minds, has attained a degree of importance which places it among the most interesting and precise departments of science.

6. In this brief essay I purpose to consider the theories of fœtal nutrition, and to apply established principles, in explanation of some of the phenomena, connected with the subject.

7. To the structure and relation of the membranes of the pregnant uterus, it will not be necessary to refer, except so far as may be indispensable to our arguments.

8. "The first connection which exists between the ovum and the decidua, consists in the ramified villi of the chorion becoming imbedded in the hollow canals which traverse the decidua. The villi extend through these canals in the manner of roots, and thus draw nourishment from a maternal structure, without having any organic connection therewith."*

9. According to Weber, in the human subject, the vascular villi of the fœtus dips into wide blood vessels, which arise from the uterine system, and which permeate the whole uterine portion of the placenta; the looped capillaries of the fœtus being bathed, as it were, in maternal blood. The ends of the villi are formed by the inosculating loops of the minute arteries and veins of the fœtus, which, however, have the

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* Müller, p. 844.

distinguishing character, that the same vessel makes several turns from one loop into another, before it enters the nearest venous trunk. Thus the structure consists essentially of two sets of vessels being brought into the closest possible contact.

10. After this connection between the fœtal and maternal system is established, the blood vessels of the former absorb nutriment from those of the latter; and this enters directly into its circulation. The relation thus maintained between the two, supplies the process of respiration to the fœtus, or is an equivalent for that process.

11. After the blood circulates through the fœtus, it returns to the placenta, "loaded with carbon," where it meets with oxygen. The ultimate disposal of the carbonized blood is not defined by any authors that I have consulted, except in very general terms. "The fluids of the fœtal and maternal portions of the placenta, suffer an interchange with each other." This carbonic acid, of course, then, must be discharged through the venous system of the mother.

12. Prof. Draper refers the supply of oxygen for the venous blood of the fœtus, to exosmosis from the maternal system. As this gas is now believed to exist in a state of solution, in the blood.

13. This constitutes the only system of fœtal nutrition to which much importance is attached. I will now proceed to the argument.

14. *The secretion of the liquor amnii.* This liquor has a decided alkaline reaction, the indications of which disappear, when the test paper is dried. Simon attributes this to the presence of free ammonia. A specimen of the pure liquor, which I examined with reagents, gave indications of ammonia. Two analyses of Colberg, gives as its constituents:

Water,	980·0	977·0
Solid constituents,	20·0	23·0
Albumen,	9·0	12·0
Urea,	0·5	
Alcohol, extracts and lactates,	2·0	3·0
Fat,	2·0	3·0
Chl. sodium,	4·0	4·0
Phos. of lime,	0·3	

To which ammonia may be added.

15. The products of respiration are CO^2 HO and NH^3. Being excretory products, they are thrown off from the system; the NH^3 through the urine, the water and CO^2 by the lungs, skin and urine. But the fats are classed among the respiratory foods. Most of them are formed by a combination of stearic and margaric acids with glycerium,* and in the reactions which occur between these acids and a base, they give up water.

16. According to Meuries, an adult man in the course of twenty-four hours, gets rid of 2,880 grs. of water by expiration; Abernethy fixes the amount at 4,320; Thompson at 9,120; Hales at 9,792; and Lavoisier at 13,704 grs.†

17. Taking the average of these, we will have 7,843 grs. every twenty-four hours. Commencing now, from the beginning of the fifth month of pregnancy, when all the membranes of the womb are completed, and fat, horny tissues, etc., begin to be developed; we will assume the weight of the fœtus to average three lbs. to the time of

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* Simon, p. 69.

† Simon, p. 118.

parturition, or for a period of four months. This will be one-fiftieth of the weight of an adult. And if we suppose that the respiratory functions of the mother and child bear a corresponding ratio to each other, then 156 grs. of water should be formed by fœtal respiration every twenty-four hours, or about thirty oz. during the whole of the above period.

18. The cutaneous exhalation and sweat are true secretions.* Seguin, in a series of experiments which he made, in order to ascertain the quantity of matters lost by exhalation, arrived at this result:—that the mean loss in a minute, is eighteen grs. of which eleven pass off by the skin, and seven by the lungs.† If we refer the secretion of the liquor amnii to the skin, a greater amount will be derived than by the process suggested in ¶ 17. This will fully account for the source whence the liquor amnii is derived; for we shall hereafter endeavour to show that the function of fœtal respiration is entirely independent of the mother.

19. That all the changes consequent on conception may be produced, without attributing to the blood vessels about the womb any new function, or any action which the vessels in other parts of the body do not occasionally assume, will next be considered.

20. When conception takes place, there is a universal tendency of the blood to and about the womb. This followed by a secretion of coagulable lymph in the uterus which, becoming organized, constistutes its membranes.

21. This is nothing more than what occurs to a greater or less extent, in all local inflammations; in some, morbid secretions and false membranes are produced; while in healthy inflammatory states, those secretions constitute a part of the recuperative action.

22. Hence the principal distinction between local inflammation which occurs in different parts of the body, and the stimulus imparted to a pregnant uterus, consists in this:—that the secretion, in the latter case, continues for a long time, without reflecting any morbid action to the surrounding parts.

23. *Nutrition of the fœtus.*—About the expiration of the fourth month of pregnancy, the formation of all the membranes may be considered completed, and they assume their respective functions. The circulation in the fœtus is established, and its nutrition and growth steadily promoted by the nutritive fluids.

24. "In the adult structure, nutrition is effected through the coats of the capillaries, and the process consists in the fluid parts of the blood permeating their parietes, while the solid particles are visibly carried on into the veins. The albumen and fibrin dissolved in the liquor sanguinis, being the principal materials for nutrition."‡

25. The presence of oxygen is necessary to the perfect development of the blood corpuscle. And though iron is a constant ingredient, yet it is now conceded to be neither essential to hæmatorine, nor necessary to the color of the blood.||

26. Anatomical investigations have shown that it is impossible for the blood of the mother to be transmitted unchanged into the fœtus;

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* Müller, p. 459. † Ann. de Chim., t. 90. Müller, p. 456.

‡ Pereira on Food and Diet. Scherer, Recherches Exp. sur le Sang Humain.

|| Müller, p. 470.

nutriment and arterial blood can only make their way into the fœtal system through the medium of cells.*

27. But it has never been demonstrated that arterial blood from the maternal circulation makes its way into the fœtal vessels. Neither is there any physiological principle that would lead us to suppose that such is the case. On the other hand, we know that in chemical operations, a membrane will separate the coloring matter from a fluid, while passing through it. When we can account for any effect that is produced in the organism, by the operation of established laws of the animal economy, we are not justified in resorting to theories which have a tendency to obscure, rather than simplify, the great operations of nature.

28. The first effects of conception on the maternal system have been stated in ¶ 20. And physiologists agree that these secretions are colorless. "If the substance of a pregnant uterus be compressed, a thick whitish fluid exudes from the surface of the decidua."† It is reasonable to believe, that the further development of the membranes and the fœtus is continued, on precisely the same principle that they were commenced. And they should be carried on in accordance with the principles of nutrition stated in ¶ 24.

29. From these premises I assume that the substances which nourish the fœtus are the albumen and fibrin which are transmitted through the nucleated cells of the placenta into the vessels of the fœtal system, and that the corpuscles of the fœtal blood are formed and perfected by its own vital action.

30. If the fœtus received its blood corpuscles from the mother, it would follow that the size of those corpuscles would be the same in both systems. But according to Mecker, they are smaller in adult animals than in the fœtus.‡ Prevost and Dumas have also found the red globules in the embryo to be larger than those of the adult animal.||

31. The manner in which blood corpuscles are formed from the lymph is not known. Physiologists suppose that a capsule "which is at first very thin, but which subsequently becomes thicker and thicker, is developed around the lymph corpuscle; this capsule is filled with hæmato-globulin, which is at first comparatively colorless, but subsequently assumes a vivid red tint."§

32. For the metamorphosis of these protein substances (¶ 24) into the various tissues of the fœtus, nothing more is required than the presence of oxygen. According to Mulder the fibrin, oxidized in the lungs, is the principal, if not the only vehicle in which this gas is carried through the system. This is based on the fact, that oxygen is absorbed by fibrin, and converted into a tritoxide of protein, with one equivalent of which it easily parts while passing through the capillaries. Prof. Draper, on the other hand, refers the supply of O to the fœtus, as stated in ¶ 12. It is a matter of no importance to our argument, which of these theories be adopted; as in either case the O will be supplied to the fœtal circulation.

33. From the foregoing premises then, the nutrition of the fœtus

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* Simon, p. 119. † Müller, p. 845.
‡ Mecker's Anat., I., p. 24. || Müller, p. 146. § Simon, p. 132.

may be deduced, as being derived from the albumen and fibrin, and oxygen, which pass from the maternal into the fœtal system, through the nucleated cells of the placenta.

34. *On fœtal respiration.*—The experiments of Sir H. Davy, Magnus, and others, to determine the amount of carbonic acid excreted from the system, were confined to the quantity thrown off from the lungs. It is known, however, that the skin also discharges it, and that it is discharged through the urine, in combination with saline bases. Simon considers it probable that free carbonic acid is a normal constituent of the urine. A number of experiments which I have made tends to confirm this view. Hence, then, we have in the adult three channels for the excretion of free carbonic acid from the system, and one for the carbonates.

35. We will now compare this relation with the respiratory apparatus of the fœtus. The lungs do not take in any function; and the urine, if any, is not in sufficient quantity to have any appreciable effect. The carbonic acid must all appear, either as a secretion from the skin, or in the capillaries of the placenta. In the former case it would be held in solution by the liquor amnii. But from experiment I have not been able to detect it, in a very pure specimen of this liquid. We therefore look to the placenta for an explanation of the results of fœtal respiration.

36. The accepted theory supposes the venous blood of the fœtus to discharge its carbonic acid through the uterine capillaries, or for the venous blood itself to pass into the maternal circulation. There are no facts with which we are acquainted that can sustain this supposition.

37. It has already been stated, that a direct communication exists between the fœtal arteries and veins in the placenta (¶ 9). Let us now look at the circumstances under which carbonic acid would escape from the fœtal circulation.

38. The capillaries of the inside, and those of the outside surface of the placenta, are close to each other. The constituents of the blood of each are the same, but the relative proportion of those constituents differ. The venous blood of the fœtus does not contain so much carbonic acid as that of the mother. And when they come into proximity it is not reasonable to suppose that the blood, containing the *least* proportion of carbonic acid, should give up a portion to those vessels containing a *greater* quantity. The other supposition, that the venous blood itself passes into the maternal circulation, is still more objectionable, for, if the blood corpuscles of the mother cannot pass into the fœtal system, how much more impossible is it for those of the fœtus, which are larger, to pass into the maternal circulation.

39. The essential act of fœtal respiration is not to oxidize the carbon of its blood, but to oxidize its protein, as suggested in ¶ 32. For I contend that the amount of carbonic acid generated in the fœtal system is exceedingly small, from the fact that the development of the child is purely a process of nutrition. Hence there are no effete particles to be removed. We never find nature, when forming an organ, to assimilate materials which are not absolutely required for its develment; and then, by a reflex action, immediately to destroy the superabundant structure.

40. But an objection may be urged, that fœtal blood is known to contain carbonic acid. So it does; and so does the arterial blood of an adult. This is necessary in both cases; for the different organs of the body are differently constituted. There are some highly-carbonized products in the system which could not be formed from arterial blood, were there no free carbonic acid present. No less than five per cent. of the mass of the brain is composed of different fats.* The liver and bones of the fœtus also make a large demand on the carbonic acid of the arterial blood, for their structure. Hence, then, the position, that there is no more carbonic acid in the circulating fluids of the child than is necessary for the wants of nutrition.

41. It may furthermore be said, that the fatty matters of the body are not generated, but that they pre-exist in the food, and are taken up by the capillaries in a state of solution. In part, this is unquestionably true; and it is also true, that the process of nutrition is not a mechanical one. Though the proximate elements of every part of the system may exist, ready formed in the blood, yet the vital action of each organ consists, not merely in the power which its cellular structure may possess, of absorbing particular products from the blood, as it circulates through it, but of modifying the elements of those products, so as to form a substance simulating to its own composition.

42. To suppose that the simple cellular structure of the leaves of plants have the power of forming fatty compounds, while this same function is suspended in the more highly-organized animal system, is at variance with that great arrangement of nature, where we see the same structure and function preserved with scrupulous fidelity in all the orders of animated existence—from the simple polypi to the complicated fabric of the human system.

43. Do the musk tribe (*moschus*) gather from their food the substance that is so peculiar to them? Does the musk ox (*ovibus muschatus*) derive his odor, the beaver (*castor fiber*) his castoreum and rancid oil, the skunk (*mephitus Americana*) his intolerable glandular secretion, directly from the food on which they live? And, coming nearer home, is the odor of the negro a product of his food? The presence of these principles in some animals, while others, feeding on precisely the same kind of nutriment, have nothing analogous in nature, manifests, beyond doubt, the existence of a modifying, formative action in the living organism, which is peculiar to it, and it alone. Precisely on the same principle, that the pine tree will produce its aromatic gum, the maple its sugar, the tobacco its narcotine, all standing side by side, depending on a common soil and a common fluid for their nutrition and growth.

44. *The temperature of the fœtus.*—From the foregoing views it would follow, that as there is but little oxidation going on in the fœtus, its temperature should be lower than that of the mother. In the adult, rapidity of circulation is productive of an increased amount of heat. But the blood of the child circulates with much greater rapidity than that of the mother. Auteureith and Shultz have shown that the fœtus has but slight independent warmth†—a circumstance which favors the above supposition. While the increased rapidity of circulation may

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* Simon, p. 615.

† Experimenta circa calorem fœtus et sanguinem. Simon, p. 125.

be referred to the greater relative amount of oxygen contained in the protein, which is absorbed into the fœtal circulation. (¶ 28.)

1. From the foregoing views we deduce the formation of the membranes of the womb by the secretion of the oxides of protein, from the local excitement consequent on conception.

2. That the metamorphosis of the blood into the various organs and tissues of the body is accompanied with a secretion of water, which is discharged either by the skin of the fœtus or the inner surface of the placenta, and constitutes the liquor amnii of the womb.

3. That these oxides of protein continue to be secreted after the fœtal circulation is established, and enter the vessels of the umbilicus as the nutritive fluids of the child.

4. That the metamorphoses of these into red blood is produced within the circulatory system of the child.

5. That the fluids of the child do not find their way back into the maternal circulation.

6. That the function of fœtal respiration does not consist in a combination of carbon and oxygen, but by a combination of this latter gas with the partially-deoxidized protein of the blood.

7. That the carbonic acid found in the fœtal blood is an essential ingredient for the formation of particular parts of the system.

8. That the slight independent warmth of the fœtus proves that there is but little combustion of oxygen in its system.

Art. IV.—*Case of Exsection of the Head and Surgical Neck of the Os Humeri.* By William Waters, M. D.; read before and communicated by the Æsculapian Society of the University of the City of New-York.

On the 22d of September, 1846, Samuel T. Henry, in the service of the Baltimore and Ohio Rail Road Company, while acting as breakman, the car upon which he was stationed, struck a box that threw it off the track, and he was precipitated between the rails, when four cars passed over him. A projecting iron rod or bar (supposed to be a part of the break) beneath the cars, pierced the posterior margin of the axilla of the right arm, divided the teres minor and wounded the teres major and tendon of the latissimus dorsi muscles. The rod passing through the arm and out on the inner margin of the deltoid and outer margin of the great pectoral muscle, immediately below the coracoid process of the scapula, between the deltoid and short head of the biceps. The cephalic vein was torn where it passed between the inner margin of the deltoid and great pectoral muscles. The os humeri was fractured in the surgical neck, at the insertions of the latissimus dorsi and the great pectoral muscles; also below obliquely between the insertion of the deltoid and origin of the brachialis anticus muscles.

The right forearm was stripped of integument in front, extending from midway to near the carpus, and winding around the radius between the index-finger and thumb, laying bare the flexor tendons and in part the muscles. The muscles being slightly lacerated, the tendon of the flexor carpi ulnaris being torn out, leaving a part of the muscle pending from the wound, that required removal.

His left foot was crushed by a wheel passing over the metatarsal bones near their connection with the tarsal. The internal cuneiform bone was crushed on the anterior surface where it joined the metatarsal of the great toe. This injury required the tarso-metatarsal amputation.

A wound of the scalp over the os frontis for four inches or more existed, with a crack or fissure in the os frontis, one inch and a half in length, just beneath the margin of the hairy scalp. Several wounds on his face down to the bones were incurred, besides other minor wounds about his person.

The arm produced decidedly the most pain, the os humeri was adjusted with loose dressings and the forearm surrounded with dry bran, which arrested the hemorrhage of the forearm, as it was copious after reactions from the free use of stimulants and anodynes. The shock was great to his nervous system, having lost a good deal of blood from the wound over the os frontis before being brought to town. Having also gone through the amputation of his foot, he required anodynes and stimulants for the first twenty-four hours. The cephalic vein oozed rather freely, was checked by dry bran and slight pressure.

September 23d, had a restless and painful night with his arm, no fever in the forenoon. Afternoon, slight fever. Prescribed epsom salts as a cooling aperient and to be followed by Dover's powders and morphine if necessary to allay pain.

September 24. High fever with delirium. Prescribed saline cathartics in such doses as to keep up an action on the bowels. Fever very high at night, requiring four and five persons to keep him in bed. Bladder of iced water to be applied to his head, and frequent cloths wet with iced water to his shoulder and arm.

September 25. Better, but fever continues with traumatic erysipelas of the scapular region, shoulder and down the right side of the chest. Aggravated no doubt by his efforts to force himself out of bed in his delirium last night. Continued the cold dressings to inflammation with occasional use of Velpeau's solution of the sulphate of iron. Dressed forearm with linseed poultice, and also wounds of the head and face. Prescribed broken doses of epsom salts.

September 26. The arm having rested on a bran bag, was placed on an inclined plane upon a bench across his chest; fixed so as to elevate or depress at pleasure the arm without touching the erysipelatous parts, being confined on his left side. The least motion would produce great pain of his arm, but perfectly easy when he would keep quiet. I therefore had an angular splint excavated for the arm and forearm, with cushions of bran for the whole arm to rest upon. This apparatus was suspended from above with buckles to eight straps, which gave an accommodating power to the degree of elevation and more latitude of motion, without displacement of the fracture. A moderate fever was treated by inclined plane of the arm, cooling aperients, anodynes to allay pain, which his excessive restlessness made more necessary, cold cloths of iced water, and solution of sulphate of iron with linseed poultices to forearm, etc.

September 30. Fever moderate, swelling over the scapula increased, and has a livid appearance extending from the posterior margin of the axilla for four inches over the scapula towards the spine of the scapula. Great pain along the right side of the neck requiring free use of morphine.

October 1. Very much swollen over the scapula; still great pain along the right side of the neck. Fever moderate and more irritative in the afternoon. Had trismus this morning, soon subsided under use of anodynes. Yeast poultice to livid spot on the scapula, previously sprinkling the part with Peruvian bark. Prescribed sulphate of quinine every forenoon.

October 4. Opened an abscess over the scapula about two inches from the base, and also an inch from the spine of the scapula through the gangrenous spot. The surgical neck of the bone projected upwards and inwards an inch below the coracoid wound from the commencement. This ulcerated through the integuments, making an opening two inches long below the coracoid process with the neck of the os humeri projecting at an angle of 35 degrees. The end was sawed off and bone reduced, but soon assumed the former angle of projection through the wound. The spinati muscles with the subscapularis acting, produced this projection of the surgical neck; as the antagonist, the teres minor muscle, was divided. A decoction of Peruvian bark and elixir vitriol given in the forenoon, when he was free from fever, but there was some irritative fever every afternoon.

October 6. Opened an abscess over the chest, two inches from the right nipple below the great pectoral muscle. The discharge here was small, but very profuse from the scapula. The collections of pus proceeding from phlegmonoid erysipelas. His countenance improved, not so haggard or Hippocratic. All inflammation having subsided for some days, made another attempt at reduction. Reduction easy, but impossible to keep the surgical neck in place. It projected through the wound at the same angle. Continued the bark, anodynes, and laxative condition of the bowels, with more generous diet.

October 10. Having made several attempts at the reduction of the surgical neck of the bone, prior and subsequent to the reduction of inflammation. The surgical neck projecting with five cracks, four of which extensive. The periosteum being off from the greater portion of the neck. The patient being somewhat improved by tonics and increase of diet, yet laboring under some irritative fever every evening, with considerable pain at times, requiring the daily use of anodynes to procure sleep, and that in short and broken intervals. The position all along being on the left hip or side, with his arm resting upon a suspensory and angular splint; for weeks the skin over the crest of the ileum, trochanter major, and thigh, have been and are excoriated; although now improved from keeping pressure from the sore points. Doctor A. Ritchie concurred in the opinion of exsection of the head and neck of the os humeri in preference to amputation. This being the only truce in the condition of his system when the knife was not contra-indicated by either alarming debility or inflammation and free suppuration. Assisted by Dr. Ritchie, Mr. Charles F. Percivall and Charles Boyce, the latter students of medicine, we proceeded to operate.

An incision was made from the acromion process for four inches through the skin and deltoid muscle to the shaft below, a second incision from the lower end of the first, to the lower end of the sub-coracoid wound, carried obliquely upwards, making an irregular V flap. This flap of skin and deltoid being raised, gave entire command of the capsular ligament of the shoulder-joint. That being entered the supra and infra-spinati tendons with the teres minor were divided with a blunt-pointed bistoury behind, then the long head of the biceps and subscapularis tendons on the inner side, separating the attachments of the neck with a scalpel. The head and neck being removed, the shaft below had some rugged points which were sawed off transversely, and the margins removed by bone forceps. A cloth being previously placed under the shaft to prevent saw-dust and spiculæ from entering the soft parts. A branch of the acrominalis, the posterior and anterior circumflex arteries sprung, but did not require a ligature. Torsion only was used. The wound was dressed with sutures and adhesive strips; by which the anterior coracoid wound was reduced much in size by an approximation of parts, in which the margins of the deltoid and great pectoral were destroyed to some extent by the projectile rod in the accident. Nearly a grain of morphine was given in the course of the evening, and half a pint of French brandy through the day in the form of toddy, and panada to relieve the cold surface and debilitated pulse, following the operation. He then had the best night's sleep for eighteen days or since the accident. A slight fever followed on the 11th and 12th instant, but never afterwards. The bark and acid were omitted for some days.

October 19. The os humeri was splinted on the 16th for the middle fracture. His pulse being weaker, countenance pallid, and perspiration heavy: prescribed the bark and acid several days ago. Anterior coracoid wound closing rapidly, but discharging freely. A slippery elm bark tent introduced daily into the posterior wound of the axilla, to drain from beneath the deltoid. Discharge free from slough wound over the scapula. Forearm and foot healing rapidly. Wounds on the head and face well. Suffers more from excoriations over the ileum, trochanter major, and thigh, than from his more serious wounds.

October 20. Omitted the suspensory splint, and applied first part of clavicular bandage and pad: with a roller over the forearm, to retain lint dressings and prevent swelling, which is healing rapidly. Tendency to syncope from placing him on another mattress, and turning him from his left side on his back, although the horizontal posture was observed. He required brandy toddy for an hour, to keep up and restore reaction.

October 21. Wounds of the scapula and below coracoid suppurating more freely. Discharge from the scapula too thin and flakey yesterday, more laudable to-day. Improving. Two ounces of decoct. Peruv. with vit. acid, at 6, 8, 10 and 12 o'clock daily.

October 25. An opening occurred an inch below the spine of the scapula through the deltoid muscle, within the slough wound, which discharged a very offensive matter. Improving. Elevated him, lying on an inclined plane slightly. Tonics continued, with porter, jellies, oysters, toast, crackers, &c.

October 26. Improving. Directed his meals to be taken while elevated on an inclined plane, to prevent deposits of matter, and favour exit of pus from posterior axillary wound. The discharge through the deltoid ceased in a few days.

November 4. More restless with pain of his shoulder and slight erysipelas around the scapula wound; forearm more swollen with erysipelas on the back of the hand. At night had to turn him on the left side again. Reopened the opening through the deltoid muscle, and infra-spinatus. These muscles were tumefied over the scapula. Half a teacupful of offensive pus issued from beneath the deltoid, which communicated with the glenoid cavity. At this opening, a tent of slippery elm bark was introduced, which reached near the cervix scapula, and was continued daily, until a consolidation of parts occurred between the glenoid cavity and shaft of the os humeri. Next morning swelling and erysipelas over the scapula and hand had subsided.

November 28. Removed splints from the os humeri, which has united firmly. The tonic course, with a free use of anodynes, was continued to the middle of January, 1847. He suffered considerably from neuralgia in his arm, chest, and other sound parts of his body; there was great exalted sensibility of the chest, with a sense of stricture in full respiration, making it necessary to keep the roller slacker, fastening the pad under his arm. This gradually disappeared under the tonic course, and towards the close of treatment, gum asafœtida soothed his nervous system more than morphine largely given, or in combination with hyosciamus.

He departed for Baltimore on the first of February, 1847. On the 20th of the same month, I received a letter from him, written with his right hand very legibly. Stating his general health good, wounds all healed, except the scapular tent hole. Flexion of the fingers good, flexion of the wrist, pronation and supination impaired. Flexion of the forearm impaired. The shoulder not reported, but could by support of the hand carry the elbow from his side *six* inches. The right os humeri is two and one-fourth inches shorter than the left. The bone removed, measures exactly *four* inches, including the head.

Art. V.—*Notes of a rare Case of Epilepsy in a Female.* By Alban Smith Paine, of Paris, Virginia.

I accidentally encountered, some time since, what I regarded as an interesting case of chronic hydrocephalus in a female laboring under epilepsy, and have determined to lay before the medical profession, through the columns of your valuable Journal, a plain statement of some of the phenomena witnessed by me during her epileptic paroxysms. With your permission, I will also state all I have as yet gathered of her previous history from communications made to me by her mother.

Should you deem it a case of sufficient interest, I will endeavor (after collecting all the facts) at a future day, to give you a more extended account.

At 11 o'clock, p. m., Dec. 22, 1846, I was called to see Mrs. O—— threatened with hemiplegia. I found her a very intelligent old lady; and after her alarm for herself had somewhat abated, she requested me to examine her daughter's head, "and see," said she, "if you ever saw any thing like it before." I turned around, and for the first time, beheld her daughter seated in a rocking-chair. Without advancing towards her, I noticed two things; 1st, the quiet and inoffensive manner in which she sat; 2dly, that peculiar apathetic, or epileptic expression of countenance which, added to the unsymmetrical shape of her head, I looked upon as so unerring a diagnostic, that I at once remarked, "Madam, your daughter has fits." "Yes, but feel her head, and see if you ever saw the like before." I did so, and to my surprise, found a large collection of fluid beneath the dura mater, the two parietal bones separated all along their sagittal suture, and the anterior fontanelle as perfect as in the infant. A separation all along the lambdoidal suture could also be discerned. The pulsation of the middle meningial, or middle artery of the dura mater, (I cannot say which) could be distinctly felt. I pressed beneath my finger the accumulated fluid along the sagittal and lambdoidal sutures; but could detect no separation in the coronal suture, though I think there is a slight separation.

I then passed my finger firmly along the petrous portion of the temporal bone. This instantly caused violent sneezing, and I had to desist, as I was told that if I continued it, she would be thrown into "fits," sneezing being the premonitory symptom. I have since then, and can at any time, by the pressure above described, produce the sneezing which invariably terminates in convulsions.

Miss O——, ætat 31, has dark hair, large blue eyes, and high malar bones. She is five feet six inches in height, her head large, the walls unsymmetrical. Her forehead rises perpendicularly; the parietal bones bulge to the sides. The head may be described as long, broad, and deep, flattened upon the top—of a strumous cachexia.

The following is her mother's account of her.—Betty was a very plump, fat child until sixteen; although in her childhood, she often complained of her head's "hurting" her, and was hardly ever free from what they supposed to be nervous headache, sometimes accompanied with vomiting. There was no sign of her menstrual flux until she was in her nineteenth year, although she complained of some pain in the head, back and loins, at regular periods, after her sixteenth year, and had been given domestic emmenagogues from that time. In her nineteenth year, her trouble still gradually increasing, a physician was called in. He succeeded in establishing a slight show accompanied with dysmenorrhœa.

About this time, the "medical faculty," it seems, turned seriously their attention to her, and tossed promiscuously into her stomach, every variety of pills and mixtures which load the shelves of the modern apothecary's shop; and threw up more injections in her vagina and rectum than would medicate the waters of the vast Mississippi, with no other effect than that of producing in three years, two "slight shows," accompanied with a great deal of gastric disturbance; which sympathetically, soon pervaded the functions of her whole system.

About this period, there was established a vicarious discharge *per rectum*, which still recurs once or twice a year. Her digestive apparatus has ever since been in the most enfeebled condition, resisting all remedies. And thus she "vegetated" on for a few years, until she was suspected of "spinal disease;" and then a perfect avalanche of remedies was showered down upon her, seconded by all the known means of counter-irritation, rubefacients, epispastics, sinapisms, issues, moxas, setons, actual cautery, etc., with no relief; but a further prostration of the whole system. Thus things progressed, until about four years ago, when it was supposed she labored under inflammation of the brain; and again she waded through the whole retinue of remedial agents, recommended for this disease by various authors.

In shaving her head for this purpose, her mother first discovered an absence of bone of the size of a dime, corresponding to the anterior fontanelle. The physician's attention being called to it, he discovered it to be as stated. Shortly afterwards, a consultation took place, and she was put under the effect of "strong medicine."—I give her words.

Epilepsy soon supervened, and it was observable that an effusion had taken place, which increasing the pressure, as the fluid augmented, it became so great as to cause a separation of the bones, the violence of the convulsion increasing.

The old lady informed me she had lost two brothers, one from paralysis, the other from apoplexy. I then took my leave, having first received the assurance of the family that I should be sent for whenever she had another of her "spells." I suggested that it would not, in all probability, be long before she had one, seeing she appeared agitated about her mother. I was more readily induced to believe so, as I noticed at the time of leaving, some slight spasmodic twitches of the anguli oris, and alaquæ nasi muscles. Nor did I err in my opinion. At seven, p. m., I was sent for. I found her in a sneezing fit. She sneezed, after my arrival, 144 times in a minute, by the watch. After sneezing in this way, some two hundred times, she went into the most powerful convulsions I ever saw. Her neck was twisted round to one side, and forcibly drawn down upon her sternum; her hands flexed upon the wrist, forearm upon the arm, and drawn across the chest. The sterno-cleido mastoids were so powerfully put upon the stretch, that it seemed they must inevitably snap asunder. Her face was flushed, but not bluish, pulse not discernible at the wrist, whole countenance distorted, eyes fixed and staring, tongue protruded between the teeth (nearly all of which have been ground out during former attacks), and mouth filled with white foam. In the lapse of some ten minutes, a slight relaxation ensued, lasting for a moment or so, whereupon the pectoral muscles commenced powerfully to contract, alternately from side to side, with great rapidity, which had the effect of jerking her to and fro, with such velocity, that the friction of her dress against the bed clothes made a grating noise distinctly to be heard in the adjoining room. Whilst her breathing (some two hundred in the minute) resembled the puffing of a steam-engine. At the same time, her mouth would be drawn along with equal rapidity, and as it passed from side to side, she would snap and bite like a rabid animal. In this state, her strength equals that of three women. After about ten minutes of such paroxysms, she sunk exhausted into profound coma, her face turgid, breathing stertorous, but rather faster than usual, pupils greatly dilated, retina perfectly insensible to light, slight subsultus tendinum of the muscles of the face, twitches of the zygomaticus minor, which caused the bystanders to remark, "See, she smiles." All was quiet for a few minutes, when she suddenly sprang up, crying, or rather shrieking, "Drink, drink, drink!" After a few ineffectual efforts, and some spasmodic contractions of the muscles of the throat, she lapped or gulped the water down. In an instant the sneezing returned, and she went again into convulsions. Coma soon supervened. After having remained in this state about an hour and a half, she looked up with a pleasant smile on her face, and in a naivé manner said, "I've been in the trance." No one said a word, and she went on to talk of religion very rationally and feelingly. She also sang very sweetly a touching hymn, and then relapsed into a stupid state bordering on coma. Next day she recollected nothing that had passed.

Just after one of her attacks, she is more sensible than at any other time. There are certain letters of the alphabet which she will not use, e. g.: p, k, etc. Her taste is perverted. She is very fond of castor oil, uses it with avidity, and calls it honey.

So much for my first visit. On Wednesday, 8, p. m., I was again sent for. I found her, as before, sneezing, which she continued to do until she was forced to stop for want of breath. She then passed into spasms. Her head was thrown back until it nearly touched her heels, simulating the opisthotonos of tetanus, her mouth thrown wide open, her abdominal muscles pressed in against the viscera, the intestines crowded against the vertebræ, extremities extended, eyes sunk deep into her head and watery, respiration hurried and weak, pulse slow and feeble. After this passed, she commenced sneezing, and then had a second spasm, most resembling the first.

It will be perceived that in this last spasm, the extensor muscles seemed to carry the day,—but that is the case generally with the flexors.

I have since seen her in many of these "sprees," but as yet have seen no two alike. At one time they simulate one species of spasmodic disease, and then another.

For a month after her fright about her mother, she had one or two "spells" every day, since which time, she has had only panting spells, lying hours together gasping for breath.

About this time, I first noticed a puffiness, and a feeling of fluctuation in the temporal region. I first imagined it to be produced either by anastomosis or the rupture of some of the vessels of the scalp, but am now inclined to think it an extravasation of the fluid in this region. The effusion becoming more diffused by extravasation, and thereby lessening the pressure upon a given point, we have the phenomena in a more modified form.

Being called upon by the family of Miss O—— for my opinion, I gave it, that tapping and drawing off the fluid held out the only prospect of relief, and in that I am by no means confident. I gave this opinion, after having bestowed upon the case all the reflection I was capable of giving it. I have always held it to be in accordance with sound surgery, never to resort to the knife so long as any other remedial agent gives promise of success.

But I must confess (after witnessing the various phenomena displayed during her "spells," and after making myself as familiar with her past history as it was possible to do under the existing circumstances), it is my honest conviction, that nothing promises relief but the operation, followed by a judicious antiplastic or alterative course, with care and discrimination.

After making them fully aware of the danger attending the operation, stating to them the *pros* and the *cons*, they first decided that I might operate, but have since abandoned the idea. Nor am I sure they will permit me, or any one else, to perform the operation. Had I operated, I should have borne in mind the risk of injuring the longitudinal sinus—at the same time applying such pressure as would compensate for the absence or loss of the fluid.

And now for the reasons by which I have been led to the above opinion. In the first place, I regard the "trouble" in the head as hereditary, from the fact of her having lost one uncle on the maternal side by apoplexy, and another from paralysis, not losing sight of her mother's being threatened with hemiplegia. Now, what is the most common ascertained cause of paralysis and apoplexy? Are they not due to extravasation of blood, or lymph, or to some organic changes in the cranium producing compression of the brain? Does not the perverted taste, the sneezing, go to prove that the irritation is seated in the origin of the nerves; and thence by a known law of the nervous system, it is communicated to the extremities of these nerves; in the one case irritating the schneiderian membrane, thereby producing the phenomena of sneezing, and in the other, the perverted taste. Thus *I am led to believe* the uterine derangement to be the *effect*, not the *cause* of the derangement of the cerebral functions. It is, I am aware, a nice thing in such cases, to distinguish between "cause and effect."

I account for the enfeebled functions of the digestive apparatus on the ground that by the compression at the origin of the pneumo-gastric nerve, the stomach and diaphragm are deprived of their natural nervous stimulus. The same will hold good in regard to the urino-genital apparatus, and their nerves. The discharge *per anum*, I deem critical, proving as it does, that nature, though oppressed, still struggles to relieve herself of the fell tyrant, by a salutary process. And to my mind, it tells still another tale. That nature, though borne down with the load of imposition, has preserved yet a little of the "*vis medicatrix*," and if only assisted properly, might yet do her part nobly. Her energies, though prostrated, are not quite extinct.

When I first saw the patient, I suspected ovarian tumors, or uterine tumors, as polypus, hydatids, etc., but I have seen nothing since to justify my former impressions in regard to tumors or organic lesions of those organs. It is reasonable at least to suppose, that the cause of compression being removed, the encephalic nerves being no longer compressed at their origin, might again transmit the electric stimulus to the enfeebled organs, whose functions might in time be restored.

You will perceive, I have candidly, freely, and fairly stated my own convictions, without startling you by any new hypotheses. And after you have read this communication, should you feel disposed to venture an opinion, or make any suggestions upon so obscure and badly-recorded a case, I would esteem it an especial favor; for I am free to confess it is rather too nice a thing for me in this case to distinguish between cause and effect.

All I have stated can be well authenticated by numerous physicians who have seen her. But to the skeptic I would say, come and see and examine for yourself.

Art. VI.— *Medicinal Character of Saratoga Springs.* By M. L. North, M. D., of Saratoga.

To Dr. J. A. Allen, Corresponding Secretary of the Vermont Medical Society;

Dear Sir,—In complying with your request "to lay before the Vermont Medical Society, at their approaching annual session, an account of the medicinal character of the principal springs in Saratoga; the diseases for which these waters may most advantageously be used; their adaptation or best method of using them," etc., it is only paying a debt I have long owed to the respected faculty of that State.

I beg leave to say, in the outset, that there is not a population equal to that of Vermont, which send so many invalids to these fountains as they do. I have, many times, thought there must be some peculiar antagonism of these waters to the morbific effects of that climate. And may I not say to you, dear sir, and to your professional brethren in that State, that it is a matter of high ambition in me, faithfully to discharge the responsibility they kindly impose, by consigning to me so many of their valued patients. And can I be mistaken in supposing that, when, by my own humble exertions, aided by the powerful influence of these medicinal waters, the patients return in amended and recovering health, that the physicians themselves are most particularly gratified by the happy result of their own prescribed course?

The first subject proposed in your letter is: "*The Medicinal Character of the Waters.*" There are two modes of ascertaining the medicinal character of any therapeutical agent; first, chemical analysis; and second, clinical observation. In considering the first of these modes, namely, the investigations of the chemical qualities of an agent, I copy here the third edition of my Invalid's Guide, the analysis which I obtained in the spring of 1842, from Dr. James R. Chilton, of New York.

One gallon, or 231 cubic inches, contains:

Chloride of sodium, - - - -	grs. 363·829
Carbonate of soda, - - - -	7·200
Carbonate of lime, - - - -	86·143
Carbonate of magnesia, - - -	78·621
Carbonate of iron, - - - -	·841
Sulphate of soda, - - - - -	·651
Iodide of sodium and bromide of potassium,	5·920
Silica, - - - - - -	·472
Alumina, - - - - - -	·321
	Grs. 543·498

Carbonic acid, - - -	284·65
Atmospheric air, - - -	5·41
Cubic inches, - - -	290·05

I will not trifle with the time of the intelligent members of the Vermont Medical Society by stopping to consider the individual articles of this complicated medicine. Although compounded in a region far removed from our observation, it so happens that every article of the twelve, except silica and atmospheric air, have been used in our materia medica, and most of them have long been familiar articles, yet, there is not a member of that body, who would not perceive from first sight, that the congress water has the following medicinal or therapeutic qualities, viz.: first, laxative or aperient; second, diuretic; third, antacid; fourth, deobstruent; fifth, alterative; and sixth, tonic.

Every one of these qualities is deducible from the analysis; but long before chemistry was applied to these waters, common observation had abundantly established these very identical properties. It is hence very manifest that there is a most striking coincidence between the two modes of ascertaining the medicinal character of these waters. There are, however, two or three properties of these waters which would never have been discovered by *à priori* reasoning.

First. *The augmented effect of the combination*, contrasted with the individual effects of the respective articles. There is, probably, not a member of the convention who has not been surprised at the augmented effect of some of his extempore prescriptions. This effect of combination was fully illustrated and placed on its right basis by Paris in his Pharmacologia, and has been fully considered by subsequent writers on the materia medica. Who would dream, by examining the contents of three or four tumblers of congress water, that they would prove an efficient and immediate cathartic? The principal laxative articles, if not the only ones, contained in one quart, the usual morning potation, are ninety-one grains of table salt, muriate of soda, and twenty grains of carbonate of magnesia. And yet there is scarcely one failure of a cathartic operation in twenty trials, of taking a quart before breakfast. But who would have inferred it *à priori?*

Besides the effect of combination just considered, I acknowledge that I have been much influenced in reasoning on the *modus operandi* of the congress water, by the experiments of Dr. Beaumont on the stomach of St. Martins. It was there established that if animal broth, veal soup for example, were introduced into his stomach, the gelatin, fibrin, etc., were deposited on the coats of the stomach, while the watery parts were absorbed by the mucous membrane of this viscus before reaching the duodenum. Alcohol, wine, saline solutions and similar substances were absorbed directly from the cavity of the stomach. It is, therefore, unquestionable that not only the magnesia, but the lime and iron which are rendered soluble by the abundance of carbonic acid ever present, nay, all the ingredients, including the carbonic acid, are carried in a few minutes to the thoracic duct, descending vena cava and heart, and floated in the serum to the brain, spinal marrow, viscera, blood vessels and the minutest vessels of the secretory systems.

But, take another view of this same thing. Suppose a quart of the congress water should be carefully evaporated. By looking over the analysis, you see that the various salts that would be left from the evaporation would amount to about three teaspoonfuls, moderately heaped. Suppose these were mixed with molasses and taken before breakfast instead of one quart of the water. Ninety-one grains of table salt are less than many of us take with our breakfast. The twenty grains of magnesia would not be expected to operate, though combined with the salt, if taken in syrup. Combined with these there is a large proportion of carbonate of lime or chalk, and some iron and soda, none of which should we expect to *aid* in the laxative effect. It seems scarcely admissible, therefore, to adopt any other theory of the thorough cathartic operation of these waters than that they pass in the serum, through the general circulation to the colon, and there produce this specific, watery secretion.

At sulphur fountains, invalids have none but solid or semi-solid dejections. It is not possible to have watery stools, however large the quantity of sulphurous waters taken. At our Saratoga springs, the whole cathartic effect is on the colon; and the dejections are without exception, as far as my knowledge extends, of a watery character. The sulphurous elements of the sulphur springs probably enter the blood: but their place of elimination is mainly in the small intestines, producing solid and consistent stools, while the outlet of the saline springs is, as above shown, the colon and rectum. But I must not tax your patience longer on the augmented, cathartic effects of congress water, and will proceed to consider a second quality that would not be expected *à priori*, and that is, *their tonic effect*. Although there is less than one grain of carbonate of iron in a gallon, its free admission to the blood and inner coat of the branches of the blood-vessels, has been supposed to render it more efficient as a tonic than fiftyfold the amount thrown into, and passing through, the alimentary canal. Beside the iron, there is scarcely an article in the congress water, excepting carbonic acid, and possibly carbonate of lime, that can produce the heating and inflammatory movements caused by that fluid. That it is the iron, is rendered still more probable from the fact that the pavilion water, which contains about four times as much iron, and the Putnam fountain, which contains more than seven times as much iron, while their other ingredients are very similar to those of the congress spring, are greatly more injurious in all inflammatory complaints. I will not, however, stay to theorize on the tonic qualities of these waters. Any one who will read the authentic reports of the various mineral springs in Europe and America will be convinced that all, except the simple saline and cathartic springs, are tonic and stimulating. Even your own Clarendon spring, which contains only 8·75 grains of solid matter to the gallon, and no iron, is allowed on all hands to aggravate inflammatory diseases. Is it not, therefore, most certain, that the perfect solution of these otherwise insoluble articles, contained in congress water, and their introduction into the minute vessels of the sanguiferous and secerning systems, is the cause of their augmented operation?

There is one more effect of these mineral waters which is out of all proportion to the sum of their individual forces, and which would not be inferred *à priori*, and that is: thirdly, *their alterative effect*.

To you, sir, who have spent several weeks here this season with such signal blessing, it is probably not unknown that many leave here after spending two to four weeks, using the waters without the least apparent amendment, nay, with great irritation and discomfort, who, soon after reaching home commence convalescence and continue it till an entire cure is effected. If all the visitants to these springs were called upon to express an opinion of the efficacy of these waters six weeks after reaching home it would be much more favorable than on leaving here. There is a spring in Germany to which patients resort with the express understanding that they are to grow worse and worse for four weeks, by means of the perturbations of the waters, when they leave for home, experiencing their convalescence after leaving the spring.

It is true, that a great majority of those who are benefited by the Saratoga waters, convalesce here in some measure. But, the crowning excellence of these waters is the abiding hold the invalids obtain on the amendment they receive here and at home.

Hydropathy is just now making itself famous among us, and your own Brattleborough was said last week to have one hundred and seven patients. I most unfeignedly bid the process welcome among the specialities of the age, even at the risk of being "read out" of the good family whose respect I most ardently desire. Operose and forbidding in the extreme as is the everlasting round of wet sheets, wet bandages, douches, hip baths, immersions, etc., etc.; the acquisition of health to a poor, groaning invalid, is worth the whole six months' course and the liberal compensation besides. These daring innovations on the too tender and delicate habits of our females, who have been withdrawn from the sun, and rain, and winds, confined in rooms of 70° or 80° temperature, enveloped in flannels, furs and rubbers, shuddering through fear of a cold of a week's duration, deserve, and shall have, my meed of praise. They are doing great good. I have long desired to see my fellow-beings emancipated from their false fears and notions of common colds. I calculate that every disciple who has braved the splashings of the water-cure will never again be in bondage to the common notions of bundling up. Excusing their stomachs, too, from hot slops, hot soups, hot food, etc., will do them no evil.

I rejoice that my own brethren have opened their eyes. They have sent me several invalids this season, who have, under their directions, gone into a tolerably full employment of the cold water remedies. We ought not to forget, that, except the cold diet, the remedy is our own. "It is our thunder!" Those members of the convention who have decided to be *eclectic*, and to cull what is valuable from *all* the specialities, will allow me to state, that Dr. Edward Johnson, a regular physician of London, has published "The Results of Hydropathy," describing at length nineteen cases of his treatment, in which he has fairly adopted the valuable part of the process, rejecting the humbuggery that was originally connected with it, and at the same time combining calomel, quinine, the lancet, etc. Publishers, Wiley & Putnam, N. Y., p. 181, 12mo. Our faculty should take this matter into their own hands, for, with a little energy, it can be practised in their daily ride, and they should continue to employ select parts of the treatment long after the public shall have grown weary of the formidable undertaking of residing six months in one of these self-denying and pains-taking establishments.

But I return to the inquiry: what is there in the Saratoga waters that would warrant the expectation or certainty that a permanent amendment would so signally follow from a course of a few weeks' potation and bathing? By recurring to the list of articles, there are only two medicines with which we are not perfectly familiar, and to these I shall limit my remarks. These are the *iodide of sodium* and *bromide of potassium*. If ever there was a medicine that came into the materia medica through the right door, in that noiseless, unostentatious, but steadily-progressing manner which gives strong promise of permanent favor and employment, it is the hydriodate of potassa. I forbear to *expatiate* on its widely-extended applicability and usefulness. But what unexpected results have occurred from its use? How many cases of asthma, that real opprobrium of the profession, have been relieved or cured? Dr. Mutter's case of lupus, on the nose of an asthmatic patient, calling for use of iodide of potassium: what untold relief has it accidently wrought among the ranks of asthmatics? Many are "as good as cured." Yet there is no rational *modus operandi* announced by the faculty. This article, in its serpentine, sinuous adaptation to the removal of multiform, chronic ailments, hitherto supposed to be perfectly dissimilar, seems to have confounded and pronounced baseless the venerable classification of medicines. Classification! It is a conventionality. It is an artificial bond, formed for convenience. Look at sulphate of zinc and tartrate of antimony. The one entonic, stimulating, building up, even when it vomits, the other, a deadly, depressing agent. Yet, both emetics. Look at iodine, grown in plants that were matured in a living fluid, a fluid that would kill all the vegetables on which we have heretofore experimented, and its nature is as unique as its origin. Who can classify iodine and its compounds? Quinine, what is that like? Does the word *tonic* tell at all its qualities?

But to return to the hydriodate of potassa. I have known a patient at the commencement of a frightful paroxysm of asthma in the night, take thirty grains of this medicine, and in forty minutes be asleep for the night. In the morning he could give no account of it. There was no increased action of bowels, kidneys, blood-vessels, nor any known change of action, except looseness of mucus in the lungs. If he has to repeat these large doses a few nights, he finds a bitter taste in his mouth, showing that the blood is fully impregnated with the article. There may be also slight swelling of the gums, soreness of the teeth, and possibly eruption on the face. These are *all* the evils; the alleged consequences of injury to the absorbent system, never having in my opinion, resulted from the hydriodate, whatever may be said of the iodine itself. Having taken it three and a half years in my own person, as incomparably the best palliative for asthma in doses of all grades, from infinitesimal up to ʒ ij. at once!! and received careful statements from other physicians who have watched its effects, I cannot believe in its injuring the tissues. It is truly an alterative in asthma—that is, "a remedial agent, that restores health to the system, in a gradual, imperceptible manner, without any marked sensations or uncommon evacuations during their operation." In this way it restores health in the multiplied phases of scrofula, and, in brief, in all the diseases resulting from generally-vitiated constitution or abnormal, cachectic action.

Such, Mr. Secretary, was the nature of your own threatening complaint, when driven away from your wide field, this season, to Saratoga. It was a genuine *cachexy*, introducing into several tissues, including the brain, a wild, anomalous, ataxic movement, which, unchecked by some energetic alterations, would have soon subverted the entire fabric and wound up in death. Have you not thought, sir, that the energetic agents of this happy result, were the iodide and bromide of congress water?

Clinical experiments, carefully conducted by such men as Magendie, Barther, Brame and others, in Paris, and Drs. Williams and A. T. Thompson, of Great Britain, have established a great similarity in the strength and effect of these two articles. The bromide of potassium is recommended by the faculty of Dublin, as a substitute for the iodide of potassium, because of its costing less than half the price of the iodide, and at the same time, equally useful. Future observations may show the different grades of action resulting from the combinations of these four articles, bromine and iodine with the two alkalies. But the observations thus far made, render it safe to assume that almost six grains of the two salts which are found in every gallon of congress water, should receive a most searching consideration and exact appreciation, in estimating the augmented curative effects of the Saratoga waters.

My own position precludes my experimenting on any other combination than what nature affords me in the nine fountains of this valley. But it would be a very useful and promising work for some of the members of the Convention, to dissolve three grains of either iodide with three grains of a bromide in one gallon of water, bottle, and give three half pints each morning for four weeks as an alterative. I should be very much obliged for results, either way, addressed to me by mail, or appearing in the columns of the New York Journal. Until further light, let the suggestion hereby made, of the augmented alterative qualities of the Saratoga waters being caused by the presence of those new salts, be kept in mind by the members of the Convention and the profession generally, till a full adjudication is rendered.

In concluding my remarks "on the medicinal character" of our waters here, let me say: that the reason I have confined my remarks to the Congress spring is, that it is more cathartic, is less stimulating and tonic, and is indeed, *the* fountain of the village. The composition of the others is so similar, except the far greater amount of iron, that they scarcely need to be particularized. I should say of the iodine spring, that those physicians abroad who send scrofulous patients to that spring, attracted by the name, should be informed that the name was adopted *ad captandum;* that it has as little iodine as any spring, and having as little iron as any, except the Congress, it is often the poorest spring to which a scrofulous patient can resort.*

The two remaining topics of your inquiry can be despatched with more brevity. One of them is, "*The diseases for which these waters may most advantageously be given*," and the other, "*Their adaptation; or best method of using them.*" On the subject of the best method of taking the waters, it would be wrong, in this place, to make extended remarks. The guide-books for invalids, which are purchased at a low price at Saratoga, give very full directions. Almost the only method in use here nine summers ago was, to take four to six tumblers in the morning of Congress spring water, and one or two tumblers at eleven and five, of some of the tonic waters. This substantially is the present method, only that less Congress water is necessary, since it has been newly curbed. If a patient comes here with inflammatory complaints, it is my practice to direct him to confine all his potations through the day to the Congress spring, on account of the more bracing effects of the other springs.

There is another method, called the *alterative plan*, which is gaining favour. It consists in taking, say, a large half pint of water four times a day. Physicians of intelligence, who have spent several seasons here, have generally adopted this plan. Instead of seeking to hurry the ingredients through the system and ensuring their speedy expulsion, the object is to keep each dose as long as possible floating in the circulating fluids, working a gradual, imperceptible change in the blood, muscles, brain, nervous system, secretory organs, &c. I nevertheless, prefer the cathartic course in a great majority of cases.

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* Since writing thus far, Professor Emmons, of Albany, has analyzed a new spring in the north part of this village, which he says contains twelve grains of hydriodate to the gallon. If this be correct, the fountain is destined to absorb a marked consideration from the medical faculty. The analysis was made in Albany, but I am told Prof. E. will repeat the process here soon, the results of which will most certainly be communicated to the public. If permitted, I pledge myself to forward it to the readers of your journal.

If the diathesis of the applicant be entonic, it is necessary to counteract the bracing effects of the waters, by the simultaneous use of salts, wine of antimony, blue pill, calomel, or the lancet. On the contrary, when the pulse is feeble, skin cool, and all the movements languid, I send them at once to the Pavilion spring, a most thoroughly exhilarating and tonic remedy, directing them to drink it all day, to the amount of eight or ten tumblers each day. With this are sometimes combined London porter, sulphate of zinc and spices, animal food, acrid condiments, &c. There are many invalids possessed of morbid sensibility of the membranes. It is often necessary in their cases to combine soothing remedies to protect them from the irritating effects of the waters. Hyosciamus, carb. ammoniæ and camphor, are a favorite combination of mine. A lady has this moment left my office, whose nervous sensations, while drinking the water daily, were most horrible, casting a gloom over every thing, and rendering life undesirable, till I prescribed some five days ago, the following as a shield for her irritated nerves: ℞. Tinct. Sanguinariæ, aqua ammoniæ, āā. ℥ ss. M. Dose, thirty drops, three times a day in ginger-tea. She calls to say she is perfectly freed from the whole difficulty, and is drinking with great comfort and hope.

We now come to the remaining subject, which is, “ *The diseases which are most benefited by Saratoga waters :—*

The following list, which, though I have been observing nine seasons, I bring forward with diffidence, comprises that class of invalids who require the cathartic course of treatment. Dyspepsia in all its forms ; constipation ; chronic diarrhœa ; hæmorrhoids ; jaundice ; biliary calculi ; palsy, without inflammation of the brain ; hysteria ; hypochondriasis ; neuralgia, whether seated in the face, stomach, liver, uterus, or extremities ; chronic catarrh ; humid asthma ; nervous palpitations ; enlargement of the liver and spleen ; incontinence of urine ; gravel ; leucorrhœa ; irritable uterus ; cutaneous eruptions ; rheumatism ; rheumatic enlargement and stiffness of the joints ; diabetes ; prostrate and stationary condition after acute diseases ; dropsies ; vertigo ; periodical headache ; spinal irritation ; stricture of the rectum.

I subjoin a list also of those diseases which, in my opinion, require an alterative course. Scrofula ; scrofulous tumors and ulcers ; rickets ; goître ; many cases of neuralgia ; chlorosis ; amenorrhœa ; enlarged tonsils ; long-continued indigestion ; tabes mesenterica ; sterility ; secondary syphilis ; abuse of mercurial medicines ; obstinate intermittents ; ministers' throat-ail ; black jaundice ; anæmia ; neuralgic heat of stomach ; general exfoliation of the bones, with ulceration.

Here, perhaps, I ought to stop, as I have already embraced all the topics of your letter. But I cannot doubt you designed to embrace in the investigation all the important remedies peculiar to the plan. I therefore, venture to add a few remarks *on the external application of the waters*, or *BATHS*. All of you who have been here, have noticed one thing, that every body bathes. Whether the invalids consult the physicians or not, they all expect to bathe. Why is this ? Do these invalids bathe at home ? Do your chronic patients expect you will make them take a warm bath three or four times a week ? Although the bath is more used in cities than formerly, except at watering places it can scarcely be called a popular remedy. I ask, then, why have baths been a universal adjunct here for many years? My answer is, that the same beneficial consequences which have followed the drinking of the waters, have followed the external application. The same joyful sensations of convalescence, which have demanded houses to accommodate the throng, have called for the construction of four large bathing establishments, and given them employment.

Suppose you should saturate simple water with carbonic acid, and heat it to 100° Fahrenheit. There would still be a great portion of the gas left. Suppose you keep a patient immersed in this thirty minutes. You know the stimulating effect of this gas on your fauces, palate, etc. If a whole bath could be supersaturated with the same gas, both free and fixed, accompanied by a large quantity of table salt and other salts, as is actually the case, its free application to the skin, even though a portion of the gas may be dissipated by the heat of 100°, will inevitably produce stimulation, redness and prolonged warmth and glow. There are simple carbonic acid baths in Marienbad, Germany, formed by collecting the gas as it emanates from the ground, and these *air baths* are invariably warming and stimulating.*

Great numbers here have volunteered to tell me of the difference between the permanent exhilaration, glow and warmth of one of our acid-saline baths, whether cold shower, or warm immersion baths, and the same baths from fresh water. These baths are, truly, a most powerful auxiliary to the internal use of the waters. I have not a doubt, that a bath composed wholly of the water of the Pavilion or Putnam springs is the best bath in the United States. The sea-baths are next to them. But they leave the skin so cold and clammy, there is so little glow or reaction after them, that they prove rather depressing to patients with feeble movements and circulation. Baths at the Sulphur Springs of our country are good; but when heated to 100°, the sulphuretted hydrogen has mostly escaped, and there is little left to stimulate the skin, compared with our table salt, iodine and bromine. Lugol's iodine baths are scarcely more strongly impregnated with iodine and bromine than ours. Of sulphur fume-baths I think very highly; they are, however, difficult to administer, and expensive. Medicated steam-baths have frequently attempted to live by the side of Saratoga baths, but invariably have failed. As to common fresh water warm baths, I think their benefits extremely equivocal. They need some addition, to make a medicinal effect on the cutaneous surface, such as common salt, or sulphuret of potash.

Having said thus much about the comparative efficiency of different kinds of baths, allow me, before I conclude, a word on the subject of *temperature*. The Convention will readily concur with me in the opinion, that in routine practice of the faculty, hot baths are often resorted to as a proof, in extreme cases, of professional assiduity and thoroughness in using all proper remedies, without any fixed rationale of relief. Ask two or three physicians in consultation, what shall be the temperature of a proposed bath, and they would be troubled to find their reasons for any precise temperature. But is there no rational principle to direct them in the decision; and no fixed basis of reasoning?

To attempt the establishment of such a basis, suppose you were to find a man sunk down in the snow, after long exposure to cold, taking his last sleep had you not prevented. You would find his pulse very feeble, and beating about forty strokes a minute. The physicians of Petersburgh, Russia, are called every winter to scores of coach-drivers, who spend the evening in the open air, whose pulses are in the same state. Many die there every season, not suspecting their danger, and too torpid to be conscious of much suffering. This fact of itself is fully sufficient to decide, that cold is a depressing agent, a sedative, an antiphlogistic remedy. It is confirmed by counting one's own and others' pulses, as I have done, while the patient is in a bath at 75° or 80° temperature. Conversely, a bath at 110°, uniformly quickens the circulation, stimulates the skin, and increases heat and action for hours. If the members will apply these two or three simple considerations to their own practice, they will find they have very nearly conformed their treatment to these fundamental and rational principles. If you were called to-day to a patient, with a stone passing the gall duct or ureter, you would immediately order a kettle of hot water, among other means, and apply cloths as hot as could possibly be borne, and with safety and infallible benefit. Why? Because you find a slow, soft, atonic pulse in all such cases, and the soothing fomentation can be borne. So of spasmodic pains in the alimentary, urinary, and other tubes. So in all the neuralgias.

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* See Medico-Chir. Rev., 27. 434.

But, suppose you apply these hot fomentations to the abdomen in enteritis. You have increased the danger certainly; very probably the pain. In this case, you have a small, wiry, incompressible pulse, denoting inflammation of an entonic character, and your hot applications have increased the inflammation and danger. Who would apply hot fomentations to phrenitis or pneumonitis? Who would hesitate to apply constantly ice-water, or cold well-water? Rheumatism of entonic character, that is, with hard pulse, is uniformly benefited by cold water, applied by cold affusion, cold immersion, cold shower, cold sponging. But if the pulse be soft, no matter how hot, or fat, or florid the patient, I pledge myself you would not dare cold affusion, but would resort to hot fomentations and hot baths. In this way you proceed consistently, and scientifically, and usefully. In my "Guide to Invalids," I have laid down this most simple principle as a criterion for the temperature of baths, from which I have seen no cause in eight years to depart.

"If the pulse is hard, demanding calomel, Epsom salts, antimonials, or bleeding, whatever be the colour or heat of the skin, or name of the disease, or the muscular strength, I prescribe a bath from 65° to 85°, or cold shower, and have thus far had no reason for regret or mortification. On the contrary, if the pulse is soft and slow, indicating that bleeding would be injurious, I have without hesitation prescribed the hot bath from 100° to 110°, without any untoward result, although great languor may have been experienced in the baths. If the patient has cool, perspirable skin, pale face, pale lips and tongue, the indication for the hot bath is still more clear. I invite from my medical brethren, who may be interested in the subject of baths, an unbiassed and faithful trial of the foregoing principles, for the administration of a much-abused but excellent remedy."

In conclusion, the constitutional condition of a patient changes so suddenly under the combined influence of the waters externally and internally, calling for changes in the strength of the water selected, in the quantities taken, in the auxiliary remedies, whether tonic, reducing, or quieting; for changes also in the temperature and form of the bath used, that I may have appeared to them to have rendered more attention, in certain cases, to their patients, than they supposed to have been necessary. Patients often become discouraged, and need professional encouragement, so slow and imperceptible is the amendment. Sometimes they become saturated with the water, have loss of appetite, stricture across the chest or head, or cholera morbus. This I call the "*water-storm*," which can certainly be allayed by a rigid and literal abstinence from food thirty-six hours, a saline cathartic, and omitting the water. Instead of fleeing home and losing the expense of their journey and their prospects of recovery, they uniformly recommence the use of the waters in two days.

Accept, Mr. Secretary, for yourself, for the members of your Convention, and for the faculty in general, my grateful acknowledgments for the many unequivocal favors and kind expressions of regard bestowed upon me both here and elsewhere.

ART. VII.—*Case of Rheumatism.* *By* ALVAN H. TURNER, M. D., of S. Tyringham, Mass.

MRS. G., the subject of the following history is fifty-eight years old, large, accustomed to labor, well-educated, of a cheerful disposition, has generally enjoyed good health. I was called to see her on the 16th of March last. Found she had been taken unwell some two or three weeks before, for which she was induced to take "a course" of steam, lobelia, and Cayenne. After this she was somewhat relieved. At the urgent solicitation of a very kind friend, an ancient maiden lady, who was spending the winter with her in the absence of Mr. G., she submitted to a second course. The relief this time was not so marked as they expected, and a third became necessary. After that she was so sick that the Doctor must be called. The Doctor, or rather the Doctors, went and administered a fourth course. About this time it was ascertained that she had inflammatory rheumatism, and for rheumatism "a course" was a sure and sovereign remedy; so she must have one more to complete the cure. The fifth left her in a peculiar state, talking very strangely, so that some said she was delirious. However she had vomited smartly, and thrown off great quantities of yellow bile. This showed that there was more there, and of course she could not recover till it was all removed. The sixth course left her more delirious, though she had vomited full as much as the Doctors wished. And besides the rheumatism was so bad and the strength so prostrated that some of the timid ones began to talk about danger. Oh certainly! According to the Doctors, "it was a deadly case;" but they had "seen hundreds as deadly as that," and never lost one, "the leaves" had always cured them! They had no doubt—they were almost sure—another course would bring her out bright. And sure enough, with the free use of hot drops and friction, she lived through the seventh course. This was on the 16th of March.

I found Mrs. G. in a bad condition, entirely helpless, the joints of the right arm and leg stiff and lame from the attack they had recently experienced; those of the left side then in the active stage of inflammation; the bowels confined: nothing but injections had been allowed; urine voided in small quantity two or three times in twenty-four hours; thirst urgent, especially for cold water; a most perfect loathing of food; the tongue, mouth, and fauces, as far as seen, a uniform purplish red; the pulse small, rather wiry, and frequent, but intermitting from six irregularly on to twelve or even fifteen beats in the minute.

I may remark here that I had several times prescribed in the case of Mrs. G. during the last five years, for severe gastric derangement and functional fever. The attacks were always of short duration. It was her opinion to the last, that the ailment which commenced her present alarming sickness "was precisely similar" to the many she had formerly experienced, and that she should not have had her present disease if she had done nothing, or had been steamed but once or twice. I have never been prepared to admit the last of these opinions—that the rheumatism was, or indeed could be, originally excited by the treatment she received. But however this may be, I have no doubt that the vast quantities of acrids which were administered, with perhaps an injudicious use of the vapor bath, and especially the violent and repeated vomiting to which she was subjected, all acting upon a constitution strongly predisposed to inflammatory diseases and upon a heart already hypertrophied, had laid the foundation for a train of symptoms that were "deadly" indeed.

My first efforts on taking charge of the case were directed principally to allay the subacute inflammation of the mucous membrane—no very light task, as any one will testify who has tried it, after a patient has been steeped to saturation inside and out in hot drops and hotter composition tea for three weeks.

March 23. In reference to the rheumatism the best report is, that it is no worse. Other symptoms much improved. Gave vin. colchici sem. in drachm doses.

March 24–25. No change. Continue vin. colch.

March 26. Morning. Bowels relieved without a laxative; dejections dark and fetid. Urine much increased. No relief.—Evening. Bowels have moved several times; urine copious; skin moist; has slept some; very marked subsidence of heat, tenderness, and swelling; almost entire freedom from pain; patient often saying "Oh! how easy I am!"

March 27. As above; some nausea; vin. colch. in half drachm doses.

March 28. Nausea and prostration distressing; omit colch. Only slight stiffness of some of the joints.

April 1. Extreme difficulty of breathing.

April 2. The same. Unable to lie down.

April 3. Dyspnœa subsiding.

April 4. To-day the articular affection returned. Dyspnœa gone.

The colchicum as before conquered on the third day, and there has been no return. After two days' rest to the patient the breathing became oppressed, and during the whole of April it could hardly be said to be free, paroxysms of extreme severity occurring every few days, and in the intervals being such as entirely to forbid active exercise.

During the month of May there was a considerable improvement, the patient feeling able (if she had been allowed) to walk about, and indeed she did, a few times, ride a short distance. Many of the friends even promised themselves and her, that she would recover. But they were uniformly told that there was hypertrophy with dilatation of the heart, that the hard breathing resulted from the congestion of the lungs, occasioned and kept up by regurgitation from valvular imperfection, and that the result must inevitably be death at no very distant period.

June 4. Breathing more frequent than natural; inspirations quick, almost jerking; slight pain when a full inspiration *could* be taken; countenance anxious; urine scanty; pulse quick, small, and hard; action of the heart tumultuous, intermitting ten to twelve beats in the minute. Blood drawn from the arm, in a short time showed a thick buffy coat. The relief from a small bleeding (twelve ounces) was considerable, but suspecting the existence of pericarditis, I drew as much more when the pulse softened.

June 5. Suffering less; inspirations fuller, but still oppressed. Bled to twenty-five ounces. Appearance similar to the last; relief complete.

June 6. Slight return of symptoms. Bled to sixteen ounces. Not buffed; syncope. This was the only instance in which the blood drawn by venesection or cupping did not exhibit the buffy appearance.

September 28. For many weeks past the patient has been unable to lie down more than a few minutes at long intervals. The powers of life have been gradually giving way. The paroxysms of dyspnœa have been attended with more decided palpitation, instead of the "fluttering sensation" of which she complained in the early part of her sickness, and indeed for years before. Œdema of the feet, ankles, and finally of the whole legs.

Present condition. Reposing quietly on the bed, in nearly a horizontal position. Breathing short but easy. Countenance cheerful. Some appetite. Bowels regular. Urine free but not copious. Pulse 65, intermitting three or four. Ankles and legs reduced full half in two days. Shoulders œdematous for the first time, extending on the left arm to within three inches of the elbow. Mind clear and calm, as usual, joyful in view of the expected issue—death.

During this long period of suffering, general or local bleeding produced but doubtful and at most but temporary benefit. Vomiting, whenever accidentally occasioned, brought on most intense dyspnœa. The only internal treatment that was of much avail was that which promoted diuresis without deranging the gastric functions; such as calomel, squills, and digitalis, or the two latter with the carbonate or acetate of potash, etc. The comfort of the patient was in proportion to the diuresis. A few weeks since a physician, who once lived a few years in this town, and who had given the strongest assurances that he could cure the patient if he could see her, was called, and without my knowledge left a preparation of colchicum. But it utterly failed, to say the best of it, of doing any good, a result which I was prepared to expect, as it had uniformly done so in my hands, except in the two instances already noticed, owing I suppose to the derangement of stomach which it always occasioned. In this instance the derangement, showing itself by nausea, furred tongue, and loathing of food, was particularly obstinate and severe, and only yielded on the accession of the present symptoms.

October 1. Mrs. G. had a good night; got up feeling better than for a long time. While she was eating her breakfast the family left the room to eat theirs, and on their return found her nearly insensible, and she immediately became entirely so. I saw her in about two hours. She had remained unconscious half an hour. Cannot articulate; left side paralytic and insensible; pulse 45; counted again in ten minutes, 72; in ten minutes more less rapid but exceedingly irregular, etc. No *apparent* cause for the variation. She eventually recovered very imperfectly the power of speech, and the use of the arm and leg; but sensation never returned to any considerable extent. Both the lower extremities were cold—the left obstinately so, and soft gangrenous spots soon made their appearance, and spread over the whole foot and ankle. The mind, which had been of the highest order, was gone, or only partially recalled at intervals.

She died November 9th.

I did not get permission to examine the body till a short time before the funeral, on the morning of the 12th, so that we only had time for a hurried inspection of the heart alone. Dr. Bidwell, who had seen the patient several times with me, assisted by Dr. Walton, performed the examination, and kindly prepared the following report:

" Autopsy.

" *Ribs* of both sides rather prominent.

" Several ounces of serum, tinged with blood, in the cavities of the pleura, and also of the pericardium.

" The *right lung* was almost wholly indurated, pale, sunk in water; the left completely engorged with blood, very dark, the superior lobe crepitant; lower lobe not crepitant, sunk in water.

The *whole heart* was enlarged nearly one half, and all its cavities were completely filled with coagulated blood, except the right ventricle, which contained, besides some coagula, several ounces of a yellow, fat-like substance—unorganized polypi—probably formed in the last hours of life. (See below.) The vessels of the heart itself were very much increased in size and turgid with blood.

" The *right ventricle* was greatly dilated, and its walls thickened; the *left* exceedingly hypertrophied, without dilatation; its walls being nearly an inch thick. The muscular substance of both ventricles was pale and easily lacerable. (Was not this a post obit change?) The *left auricle* was enormously dilated. While distended with coagula, it was almost as large as all the rest of the organ. The muscle was increased also, and was firmer and darker than that of the ventricles.

" The *aortic valves* had some small vegetations near their apices; apparently not enough to impede their regular action.

" The *mitral valve* was converted into a thick cartilaginous ring, with a spicula of bone on one side, almost denuded. The orifice was of an irregular semi-lunar shape, and contracted to half its normal size, and would admit easily only a single finger. It must have been, to a degree, permanently patent.

" The *aorta* was much dilated, but without change in the arterial coats.

" Head and abdominal viscera not examined, for want of time.

" E. C. Bidwell,
" L. C. Walton."

I subjoin the following communication, not so much from its concurrence with my views, or its reference to the case in hand, as from the intrinsic value of the principle brought out—that not the increase, but relief, of dyspnœa, *may* betoken the formation of polypus. Should not the distinction hinted at receive consideration; that is, if the obstruction occur *before* the pulmonary supply, the dyspnœa will be lessened, and if after—in the left heart—it will be increased? May not the brain-affection in the above case, which occurred within four days from the change noted September 28, and which I suppose was the effect of non-purified blood circulating in the organ, help to strengthen the hint?

" Dr. Turner,—Sir,

" As you object to my view of the formation of polypi in Mrs. G.'s case, you may omit the hypothetical clause expressing it. As to your view of that event, designating as its period the week preceding the attack of paralysis, I find nothing in such authorities as I am able to refer to, that sustains it, inasmuch as all unite in assigning to polypus, as one of its prominent symptoms, either a sudden accession, or great aggravation of dyspnœa. Nevertheless, your view is rendered plausible by several considerations; one of which is, that the symptoms, aside from dyspnœa, which polypus might be supposed to produce, were present; such as coldness of the extremities, (if not of the whole body), the supervention of cellular dropsy in the upper half of the body, stagnation of blood in the capillaries of certain parts, etc., evidences all of a new obstruction to the return of the venous blood.

" Another consideration is that the patient was in the state most favorable for the occurrence of polypous concretions; that is, she was greatly reduced and the circulation depressed, by a harassing disease, already of several months' continuance, and not less, perhaps, by the nausea which, whether intentionally or not, was the result of Dr. ——'s prescription, and was continued all the while she took his medicine, and long afterwards.

" Finally, notwithstanding all that authors may say to the contrary, it seems to me not unreasonable that polypi should sometimes *relieve* dyspnœa, instead of causing it. In the case now under consideration, the dyspnœa was unquestionably produced by the excess of blood in the lungs, thrown back upon them by the obstruction beyond; in other words, by the disease of the *left* heart. Is it reasonable to suppose that an obstruction to the flow of blood *into* an organ laboring from an over-load of that fluid, should *increase* the burthen or the labor? Would it not be more rational to expect, that the hindrance to the *in*gress, would tend to counterbalance the pre-existing hindrance to the *e*gress, and so rather relieve than aggravate the consequences of the latter? It seems to me that we have only to apply the well-understood principles of hydraulics to this matter. Let us suppose a reservoir like that of the Croton water-works on 42d Street, New-York, engaged in receiving and distributing at the same time; if a part of the distributing pipes are shut, and in consequence the reservoir threatens to overflow, or does overflow, what is the remedy? Obviously to cut off a portion of the supply. No one would suppose for a moment that to diminish the flow of water into the vessel would increase the danger of an overflow. And how can an obstruction before the lungs (in the order of circulation), e. g., polypus in the *right* ventricle, aggravate the dyspnœa which is the result of obstruction on the other side—the left heart?

" Yours, &c.,

" Salisbury, Ct., Dec. 1846." " E. C. Bidwell.

Art. VIII.—*Thoughts upon Insanity and Hints to Medical Witnesses.* By Samuel Hall, M. D., New-York.

What are the evidences of sanity? This question we are almost tempted to ask, in preference to the one so often asked, and never yet satisfactorily answered, of What are the evidences of insanity? And by this method we hope to be enabled to arrive at some conclusion in regard to this question, by which innocence may be saved from the horrors of a lunatic asylum, and crime meet with its just punishment. The question of what are the evidences of insanity? in a medical view, never was, or probably never will be, satisfactorily answered; for in answering it, the difficulty arises, what are we to judge by. In examining a patient for disease of the lungs, or fracture or dislocation of a bone, we have the senses to aid, and the comparison of the sound organ to assist us, but in the investigation of disease of the mind, we have mind grappling with mind, the emanation of the Deity, trying to comprehend that which it is impossible to understand; as well might the mind of man attempt to explain the formation and constituents of God himself, as to try to explain that gift from Him that man calls mind. This difficulty arises from the want of something, with which to compare the mind we desire to examine, and we must and do compare it with something; and that something is either our own mind, as far as we are acquainted with it, or the minds of our friends. This we seldom or never acknowledge to be the fact, nevertheless it is so, and the way we proceed to the examination, is to compare the patient's ideas or actions with our own or our friends if placed in the same situation.

Now, this method may be liable to many objections, for as no two faces are precisely alike, neither are two minds precisely alike, so that it might be difficult for an observer to say whether the mind of the physician or the patient was of the highest or most perfect order. And to compare the patient's acts with other persons, is liable to the same objection, for no two men act precisely alike in the same situation, nor do we ourselves know to a certainty how we would act in a similar case until we have been so placed; and the patient, though thinking and, perhaps, acting different from us, is just as likely to be right as our friends or we are.

Nor has the law been able to explain or define what is meant by insanity, in order to evade the performance of contracts, or escape the punishment of crime; for what has been acknowledged by one court or jurist to be insanity, has, in other courts or by another jurist, been pronounced to be sanity. Thus in the case of the late Miss Lispenard, of this city, whom the surrogate and the Hon. Ogden Edwards, together with the Chancellor, pronounced to be insane, and therefore, incapable of making a will or of devising her property, whom the Court of Errors, the highest legal tribunal in this country, upon an appeal, decided to be of sane mind, and competent to give, or bequeath, or devise her property. And in a case lately, in which a man by the name of Kleim, murdered a woman residing in a shanty in the outskirts of this city, the plea of insanity being set up as a defence; on a jury being empanneled to try the question of his sanity, they decided that he was of sane mind, which being contested by counsel for prisoner, a new trial was granted and the second jury decided him to be insane, which since has proved to be the fact, as he is now an idiot in the asylum.

Nor have the learned counsel and judges of England been more successful than their unrobed republican brethren of America. Thus at one time, in England, a man was considered legally liable for his acts if he was able to count as high as the number twenty, while other judges, again, made a total deprivation of reason and understanding necessary to evade punishment or avoid the fulfilment of contracts, while Lord Hale, that eminent jurist, laid it down as sufficient to render a person liable to punishment, if they knew the difference between right and wrong, or if the person knew as much as an ordinary child of fourteen years of age, rather unsatisfactory we must admit, as his lordship does not say of what country the child shall be a native, and we are satisfied that a child of fourteen in this country knows a vast deal more than a European of the same age. And Chief Justice Tracey, in the trial of Arnold in 1776, for shooting at Lord Onslow, said, that in order to escape punishment on the ground of insanity, it must be proved that the prisoner was void of *all* understanding and memory, and be no more able to judge of his acts than an infant or brute; while Chief Justice Mansfield, in the trial of Bellingham for the murder of Mr. Percival, in 1812, told the jury, that in order to acquit the prisoner, they must be satisfied that he did not know that he had committed a crime against the laws of God and nature; and later still, Lord Lyndhurst, in the case of Oxford for shooting at the queen, supported the same test of right and wrong, while we all know that there are persons who know they are doing wrong, but cannot avoid it, as in the case of persons who, occupying a high position in the world, are given to pilfering, though having no want for the articles thus purloined, but are still unable to resist the temptation, which persons really are insane. The great poet, who was so well acquainted with human nature, makes memory a test of insanity when he makes Hamlet to say:

> " Bring me to the test
> And I the matter will reword, which madness
> Would gambol from."

While again there are others who suppose it only necessary to constitute insanity if the person acts contrary to those by whom they are surrounded, or have a different notion of the proprieties of life from others that live in the same class of society, and in fact, who act or think different from what *they* do.

The time has now arrived when it is more than usually necessary for medical men to be acquainted with this subject, as upon their testimony or opinion often rests the verdict of the jury; and whether courts pay any attention to medical testimony or not, they always like to have the medical testimony in fault, if possible, should their decisions ever come to be reversed by a superior tribunal. At present it is almost impossible to convict a man of crime owing to the plea of insanity, which sometimes is the case; but the question should be how great is the amount, or character of insanity, in order to avoid the performance of a contract, or to shield the culprit from justice? And in such cases physicians should be very careful how their opinion is given, in order to prevent crafty and designing, or as they are called, *clever* lawyers, from turning their admissions into channels by which they may be made to color a statement which the physician does not believe, nor ever intended should be done by his testimony. This plea is now so often used as a pretext, that even the dearest and most sacred ties are rent asunder, and the vile murderer walks amongst us unpunished.

But a few months ago, a young lady in a neighboring State, eloped with and married her father's gardener, and for so doing she has been pronounced insane, although two intelligent and highly respectable physicians testified to the fact of her being as sane, and would compare favorably with a majority of females; and therefore is to be torn from the arms of her husband and be returned to a home which to her is more cruel than the lunatic asylum, or else wear out her days amongst idiots and in solitude. This case was tried before a circuit judge and New York jury of free and intelligent citizens!

And only a few days since another case terminated in one of our courts, in which a young man was incarcerated in the same establishment with the above lady, for the crime of marrying a poor though beautiful and virtuous girl of an inferior rank in life.

By a late number of the London Lancet, we learn that a girl who was *enceinte*, and had, by this act, incensed her brothers, to be revenged upon them, mixed their morning meal with poison and caused the death of three or four persons; she also has been acquitted upon this plea, although up to this time, not a whisper had been heard of insanity.

And in a neighboring city, a few months since, a man murdered his mistress, and this plea saved his life! And who does not remember the case of the brother of a girl who was seduced, shooting the seducer; not but the seducer deserved his death, but the fearful spread of this insanity, as a justification for crime, is the reason of noticing the fact. Friends now have only to get two physicians, (of which many are too easily got), to swear to a commitment when any of their sons or daughters marry a person they may not happen to like; and, presto! before the unsuspecting party is aware, they are confined in a mad-house and committed to the care of mocking strangers, or turned over to the care of a superannuated old nurse, in whose bosom has ceased to flow, (if it ever did), the milk of human kindness; or if a person has committed murder, he has only to summon a medical man, who for the *éclat* attending the case, may appear and swear that the criminal is laboring under insanity of some kind or other, and whether it is intellectual or moral, to a jury it is insanity; and as insane persons are not held responsible, the prisoner must be acquitted; and thus, by a species of logic known only to a jury, the criminal escapes punishment to again commit crime, knowing, if he can only fee a *clever* lawyer he is safe, as those gentlemen have the happy faculty to be able to establish the plea of insanity by the same facts which they often use to establish in other cases the sanity of a client.

Now, if the plea of insanity in its general signification, without defining the amount or character of said affection is to be entertained, it is impossible to convict a person of any crime; and the more heinous the offence the greater chance of escape, as the greater is the probability of the person being insane, morally at least, and if it is allowed as a bar to the fulfilment of contracts, no wonder that we hear of bankrupt laws and State repudiations being necessary for those persons who accept of such provisions. The majority are morally insane, and therefore require the protection of the law, for we suppose, that there never was a person who committed a crime but was morally insane, he must be so by the very nature of the case, for no man, with the fear of God and the punishment due his crime before his eyes, would do so, his nature must be morally perverted, or else at that time he was not able to reflect upon the enormity of his guilt, or the certainty of his punishment, or must, as the lawyers in the indictment call it, be instigated by the devil. There then is no test of insanity, medically speaking, nor has the law defined the question, by which we may be enabled to judge. The test, then, as we have before stated, though not acknowledged by us, is comparative.

The effort generally made by lawyers for the benefit of criminal clients, is to establish delusion on some point or other, which, when once established, they argue by their peculiar logic, that delusion being an acknowledged symptom of insanity, the conclusion must be inevitable, that the other symptoms exist, although not yet probably developed, and therefore, their client must be acquitted. This peculiar system of reasoning may answer in law, but certainly would not answer in medicine. Establish this point by the testimony of medical evidence, and acknowledge it legally, and the necessity of laws may exist, but the use of them is abolished. Admit this fact, together with that of moral insanity, and it follows that no man can be punished, for all men have either lied, which is a symptom of moral insanity, or have erred in matters political or religious, and have so erred, by a false belief or delusion on some point, which led to this error. Thus, a great political party of the day, lately erred in the calculation of success; they certainly were deluded, for others were sure (and the result proved they were right) that they would be defeated. And again, a great many persons believing in a person by the name of Miller, supposed that the world would be destroyed in 1844, and they acted in full faith upon the belief of such being the fact, though the result has shown that these persons were laboring under a delusion. And at the present day, many are acting in accordance with the belief that the Lord is to come shortly to reign upon the earth, and that he has sent a person, who is the Prophet Elijah, to prepare the way for him; while others deny there is any God at all, or that there ever was such a person as Elijah. But who, for a moment, would doubt of the competency of those persons to transact business, fulfil contracts, or to be liable to suffer for criminal acts? None, we believe, but admit the former tests, and none of these persons would be liable for acts committed by them; and even those who undertake to decide the question of insanity, could, by these tests and the aid of a *clever* lawyer, prove the judge, jury, and lawyers to boot, to be insane, for none, composing this assemblage, but have lied probably, and if politicians, have lied certainly, and as for the brethren of the gown, they are acknowledged generally to be morally insane at least, for they either lie by word or act, in defending a case which they know to be unjust, or else they think different from honest men, which would constitute delusion.

We may talk as a late learned judge, on a case in this city, did of reason, judgment, taste, etc., but what does it all amount to at last, only the comparison of the expressed opinion of the patient, with the received opinion of the majority of society, and this functionary, we suppose, in accordance with his views on the subject of insanity, would have condemned the celebrated philosopher, Combe, as being insane; for, says Combe, "I never could tell the product of numbers multiplied of any amount, and now," he adds, "I can hardly tell the product of nine times nine without going over the multiplication table until I reach that number." And if the received opinions of a majority are to be taken as the standard of comparison, what *is* insanity to-day, will not be insanity in a few years hence. Fifty years ago, and had Professor Morse said that he would have Washington and New York in communication in half an hour's time of each other, he would have, by this test, been a lunatic, and the judges of this day, had they then existed, would not have scrupled to commit him to a lunatic asylum. Or had the immortal Harvey lived in this day to have promulgated his doctrine to be now received, as it was when he first asserted that blood circulated in the arteries, he would have been arrested *instanter* by some kind, *interested* friend, and carried to the tombs, when two full-grown M.D.s would be summoned to sign a commitment for the philosopher, and while conversing with him a few minutes, for form's sake, and as he warmed upon the subject in trying to convince dunce No 1, that such was the fact of blood circulating in the arteries, his eye might gleam with the fire of genius, which would convince dunce No. 2, that he was laboring under some deficient cerebral organization, although his intellect would be as superior to his medical friends and examiner as an Egyptian pyramid would be to a dunghill. Or had Fulton lived in *this* day, instead of ploughing the Hudson with the mighty aid of steam, he might, perchance, find himself viewing that river from an iron-grated window upon the third story of lodgings furnished by the State, for the benefit of such erratic minds as his. And old gentlemen that are foolish enough to think of marrying their fat cooks or tidy chambermaids, must now remember that such doings are not permitted in New York, in this enlightened day, and young persons will be made careful that they marry with the consent of their friends, and be sure not to marry virtue and beauty if found in an inferior rank of life, unless accompanied with wealth, without they desire to be sent to the lunatic asylum, which now answers for the American Bastile, and warrants of commitment for *lettres de cachet.*

There being no tests of insanity medically, we must then rely upon, and be governed by, the opinion we may form for ourselves, and on this point we think physicians often err, not from a desire to do so, but from the too high regard they have for the opinion of some professional friend or other, who may be older, or who has had greater opportunities of seeing such cases; the true test of knowledge, in our estimation, is not what a man ought to know, but—how much he does know. If diseases of the mind were like medical and surgical diseases, in which the aid of the senses might be called in to assist us in our diagnosis, then we might depend upon the person whose senses were naturally, or by training, the most acute. But the connection of mind with, and governing matter, is so mysterious, that we can no more depend upon the examination of the mind of one man by the mind of another, than we can upon the description of a landscape or painting by a blind person, for the blind man may have all his senses very acute, except the one most needed, and although he may chance to be right, yet he may chance to be wrong; and in the same way the physician may possess every thing necessary to detect insanity except the firmness necessary to resist the opinions of others, or the moral firmness to give an opinion which may subject him to the censure of his medical *confreres*, or the loss of his patrons, the loss of either entire, which is as great a loss to a physician as the want of sight to the blind man, or, it may so happen, that the physician, in attempting to examine the mind of a patient, is like the clown who attempted to give a description of the sun by looking through a tin horn; he did not discover any thing which he could understand, and therefore was convinced that there was no sun at all. Medically speaking, there is no certain test of insanity; legally speaking, there is none yet established; what then are we to be guided by, if called upon to give our testimony in cases of this kind? We would suggest the following as a symptom to be guided by, and rules as regards the behaviour of the medical witness—a symptom which, in our estimation, is not as often used as its worth entitles it to, is the comparison of the suspected mind by itself, and not by other minds, that is, to compare the act which the person is tried for committing or performing, with other acts anterior or subsequent to the one in question. This is the only way by which we can arrive at a conclusion, even if unsatisfactory, for who will undertake to draw the line of demarcation and say, All who are beyond are sane, and all on this side are insane. And in giving his evidence the physician often errs, as we before observed, not from a desire to do so, but from a want of confidence in his own powers of observation,and often he does more harm to the party which he intends to benefit than good, thus, he hears the testimony of the medical evidence against the supposed insane party, and he has a high respect for the person thus giving his testimony, and he immediately begins to doubt, supposing that he may have erred in his opinion, forgetting that his medical brother is just as likely to err as he is, or if asked his opinion of the medical evidence which he has heard in opposition to his own, instead of giving the court and jury to know that he respects his own opinion, and that his professional brother is as likely to be mistaken in the case as he is, he immediately launches out into an eulogium upon his opponent's professional character, qualifications, &c., thus giving them to understand that he himself may be mistaken, but his professional brother on the opposite side cannot be—an understanding which the counsel opposed to his testimony is not slow in improving to *their* advantage. Now, in such cases, it becomes the medical witness to be circumspect how he acts, that he is either not made to contradict himself, or be held up to the ridicule of the court by the *learned* counsel of one side or other; physicians are usually considered fair game by the lawyers, and therefore they should be careful how they make, what, to them, may seem insignificant admissions, for we have known counsel so crafty and ingenious as to use the same words used by the witness, but convey quite a different meaning intended by him, to the jury. We were pleased at the behaviour of a medical witness on a late case which we have noticed, that occurred in this city. A juror, asking the witness a question in regard to the appearance of the party said to be insane, spoke in rather a low tone of voice, upon which the witness requested the juror to repeat the question in a louder tone, upon which the counsel opposed to his testimony repeated the same words, but placed them differently, in order to mislead, so that the question would be what is termed a leading question, upon which the witness, turning to the counsel, told him to mind his notes, and allow the juror to clothe his ideas in his own language, and when it came *his* turn to cross-examine, he would answer *him*. A rebuke at once correct and just, and which the counsel felt, as he immediately afterward dismissed the evidence. And if all our legal brethren were served as properly, we would see less of the brow-beating practised by those gentry, not for the purpose of eliciting truth, but for the purpose of puzzling and confounding the testimony of the medical witness, and we would see less of the smile on the face of court and jury in anticipation of the fun expected by the worrying of the doctor by the lawyer, when they are so fortunate as to catch one upon the witness stand. One thing more we would observe, in conclusion—that the medical man be careful in his *investigation*, when called upon to sign a commitment—for often is a physician summoned to investigate the case of a person said to be insane by parties whose interest or inclination is to prove such to be the fact, and the physician should be careful that he does not allow the cruel tales and colored representation of facts by said parties, to influence his mind, and instead of leaning to mercy, and trying to prove the party sane, he takes it for granted that the party is insane, and he tries to establish *such* to be the fact, thus allowing himself to be made the dupe of designing and crafty individuals, for it has happened to physicians that, allowing their minds to be prejudiced by interested parties, that often acts and thoughts, which, *per se*, would have passed with him as freaks of fancy, yet by his prejudiced imagination has been tortured into evidences of insanity; as a physician once, whose mind was so prejudiced by interested parties, that he swore to the patient laboring under deficient cerebral organization, from a glance of the patient's eye. And medical men should remember that it is much easier to establish a person's insanity, when once suspected, than to establish their sanity, as we suppose many of our readers will remember, was the case in that of Mr. Davies, the London tea-merchant—for the very acts which some persons would pronounce as evidence of prudence and wisdom, others can be found to believe are so many evidences of want of prudence and wisdom, or a want of the knowledge of the proprieties of life, although the difference between the suspected party and the evidence, in point of intellect, may be as great as between the brilliant sun of noonday and the twinkling of the midnight taper. And a medical man should likewise remember, that because a person is committed to a lunatic asylum, it does not, by any means, follow that he is really insane, as late cases in this city testify; and above all things, a physician should be careful not to allow his name to go to a commitment unless he is really and fully satisfied himself, that what is stated in that commitment is really and truly correct; if the suspected party is not what therein is stated, we must look upon the medical man who would sign such a document as a perjured person, whose signature is to be had for his fee, at any time. It has been urged by physicians, in extenuation of committing parties to such institutions as lunatic asylums, etc., in order to prevent the consummation of marriage and other acts or contracts, in order to enable the friends opposed to such acts to interpose the aid of the law,—that they did not think the parties were really insane and unable to take care of themselves, or were dangerous to themselves and society if suffered to run at large, as the commitment certified, but that they signed the commitment, in order to prevent the party having an opportunity of fulfilling such engagements, until the law could have time to be interposed; as the party, in their estimation, did not know, or was not aware of the train of circumstances that would spring out of the fulfilment of such contracts as well as the physician was; and by this means prevent trouble to the party committed and their friends; thus making, in the physician's act, the end to justify the means. This may be a salvo to some men's conscience; but we hope and trust, for the dignity of our profession, and the honor of human nature, that they are few. A medical man, we think, has no business with the abuse of the law; that belongs to another tribunal; nor do we think he should lend himself, because he has the power, to be made a tool in the hands of crafty lawyers or designing friends, to help them on in their nefarious practices, and for sake of patronage or a fee allow his mind to be biased by their representations. We like the old adage, every man to his business; and we would add, as an improvement, every man to his business, and doctors stick to the truth; and we must always think the physician guilty of perjury that will swear to anything but the rigid truth, no matter what are the circumstances directly or indirectly connected with the case.

ART. IX.—*Extracts from the Recorded Proceedings of the New-York Medical and Surgical Society.*

REGULAR MEETING, Dec. 5th, 1846.

DR. BUCK stated, that a patient had presented himself at the hospital who was a remarkable instance of the cancerous diathesis. He was a man forty years of age, and, according to his own statement, up to May last, he had for thirty years enjoyed uninterrupted health. At that time he noticed a hard pimple on the left heel, which remained without inconveniencing him for twelve weeks. A physician whom he then consulted made some caustic application to the pimple, *which converted it into an open ulcer.* A fortnight afterwards a hard lump made its appearance in the groin, and soon similar lumps showed themselves along the inner part of the thigh and down the leg. He lost his appetite, and became weak and emaciated. On his admission into the hospital an irregular ulcer was found covering almost the entire plantar surface of the heel, presenting nothing peculiar in its appearance. Along the inner aspect of the thigh a chain of scirrhus tumors extended in the course of the absorbent vessels. The largest of these was situated at the groin, and extended into the pelvis; below was one smaller, but more advanced, traversed by darting pains, the skin over it being shining and soft to the touch. Still smaller ones extended along the inner side of the calf to the malleolus. There were similar tumors in the neck, embracing the lower cervical vertebræ, tender to the touch, and causing, by their pressure on the cervical nerves, pains in the shoulder. For a week previous to entering the hospital, the patient had suffered under diarrhœa. He was sallow and much emaciated; the pulse was feeble, the tongue glassy, showing no traces of papillæ, and and appearing abraded on the left side. The tibiæ of both legs seemed enlarged, while over that of the left leg there was a cicatrix, which he stated occurred when he was a boy, from ulceration and exfoliation of bone having followed exposure to cold. The diarrhœa, though somewhat checked, still continues, while the disease seems spreading rapidly to the mesenteric and other deep-seated glands of the trunk. Dr. Swett inquired if the disease might not be tuberculous instead of cancerous, and asked if the patient was of a scrofulous constitution. Dr. B. stated that he was, but that the swellings had all the characteristics of scirrhus, and that around the affected glands there were little lumps in the skin having the feeling of scirrhus when it attacks that organ.

There had presented itself likewise at the hospital a case of acute pityriasis, a very rare disease, and one which is mentioned by Rayer alone among writers on disease of the skin. The patient, a fireman on a steamboat, had for twenty years been affected with psoriasis palmaris of both hands, together with an eruption on the bridge of the nose. The pityriasis appeared suddenly about two weeks previous to his entering the hospital, and with the exception of two or three narrow spaces on the chest, suddenly spread over the whole body from the scalp to the heel. The surface was curved with thin scales on a red ground. There was no constitutional disturbance. The characteristic marks of the complaint are, 1st, the large size of the scales which are as big as a sixpence, though not so thick ; 2d, their leaving when raised an oozing surface ; 3d, their extent,—psorias or lepra never covers the entire surface ; 4th, the rapid manner in which the disease extends. The treatment so far had consisted in the administration of bran baths, and the patient was improving under them. Dr. B. proposes by and by to order sulphur baths, if necessary. This is the second case which had come under the Doctor's observation. The first was cured by simple baths alone.

Dr. Buel has lately seen a case of uterine disease, which interested him, as illustrating the history of the complaint, when not treated or treated inefficiently. About a year ago he was consulted by a young married lady, with a child of six months old, for what she supposed to be prolapsus uteri. He examined her both by the touch and by the speculum. He found the uterus *in situ*, but there was a granular erosion of the os. The patient suffered from the usual peritoneal tenderness, pain in the back, and a distressing sensation of falling and dragging. She was unwilling to submit to the appropriate treatment, and passed from under Dr. B.'s care. A day or two since he was again called to her. He found that during the year the ulcer had made some progress to cicatrization, as it was smaller than when he had previously examined the patient. It was about the size of a shilling, encircled the os, and extended into the cervix. The pain and sensation of dragging and falling had increased in severity. The patient menstruated regularly, and there was an almost entire absence of leucorrhœal discharge.

Dr. Adams had lately attended a case of hemorrhage from the intestines, which seemed to depend upon the presence of hardened fæces in the colon. The patient, a lady 25 years of age, of slender habit, was attacked suddenly, and before she was seen by the Doctor, had passed near two chambers full of blood ; she was not alarmed, having suffered previous attacks which had been attributed to the presence of hemorrhoids ; the blood however was of a bright arterial color. The Doctor directed the patient to keep her bed, and ordered her some pills containing 2 grs. of acetate of lead and half a grain of opium each. The patient, however, insisted upon rising to evacuate the bowels. The hemorrhage ceased after three pills were taken, and she remained in a comfortable condition. On the evening of the following day the hemorrhage recurred. Cold astringent injections, followed by an ice suppository, were ordered. She still insisted on rising whenever her bowels were moved. Considerably more blood was passed, the quantity *in all* amounting to three or four quarts. Retching and vomiting of bilious matter now came on, which resisted all the ordinary remedies: effervescing mixtures, anodynes, sinapisms, etc., to the epigastrium. Dr. Stevens being called in consultation, an examination was made, to ascertain if hemorrhoids were present, but none could be discovered. As no feculent matter had been passed for three days, Dr. A. proposed the administration of a small dose of sulph. magnes., and half an ounce was accordingly given, which was immediately rejected. The patient was kept quiet, and cold drinks employed, but the hemorrhage recurred from time to time, and the stomach remained irritable. The next day the gastric symptoms again became prominent. The patient was ordered 10 grs. of calomel; this was retained for two hours, when bilious vomiting supervened. The hemorrhage seemed arrested; towards evening large injections were administered without effect. The patient being much prostrated wine-whey was ordered. This relieved the patient very much, quieting the irritability of the stomach, and procuring her sound sleep. In the morning injections were again administered, but the bowels still not being moved, towards evening O'Beirne's method was employed, and a stomach tube being introduced a large enema was thrown into the colon. This was retained for half an hour, at the end of which time the patient passed an immense quantity of scybala. All the unpleasant symptoms now disappeared, and the patient became convalescent. Enemata have since been given, and scybalæ continue to come away. Was the presence of the scybalous masses in the intestine the cause of the hemorrhage? The patient had been more or less constipated for several years, finding it constantly necessary to have recourse to purgative medicine. For two days before the attack she had suffered from a sensation of distention about the abdomen, which had been so great as to prevent her lacing her dress.

Dr. **Earle** had had at the asylum a number of cases of a disease, rare in this country, but comparatively common in France, and somewhat so in England, the general paralysis of the insane, (the *paralyse générale* of Kal.) He had never met with any recorded cases in the United States, and some twelve or fifteen only had been hinted at. He had had in all thirteen cases, all males. During the last eighteen months, there had been quite an accumulation of them at the Asylum, six or seven being there at the same time. He would now make a few remarks founded on these cases. The disease commonly occurs in men who have been free livers, some of them intemperate. It is long in its incipient stage, the patients being exceedingly eccentric in their conduct. In France it occurs as a sequel to ordinary mania. As to the physical symptoms; in the first place there is a difficulty of speech, hard to describe, but readily detected by the ear. Sometimes the patient drops the last syllable, at other times the words are run in together, sometimes he hesitates or stops in the middle of a sentence, occasionally the speech is entirely lost. Dr. Earle here illustrated the manner of speaking, by imitating the mode in which a patient who died some time since, and who fancied himself at once President and Vice President of the United States, pronounced his imaginary title, omitting the pauses, and running the words together, and pronouncing the letters indistinctly.

2dly, there is a tottering in the gait, an instability in walking, differing in different persons. In one case the knee would give way, as if the patient had been struck a smart blow in the ham, and he would almost touch the ground before he could recover himself. In another case the patient would totter like a child first attempting to walk alone. In other cases again the difficulty was most obvious when the patient was directed to walk in a straight line to a particular object, when a vacillation in his progress, and a degree of effort in endeavoring to maintain it, would become apparent. This difficulty in locomotion increased as the disease advanced, and occasionally proceeded to complete paralysis. In one case a short time before his death, the patient lost entirely the use of both his legs and arms. In the latter stages of the disease the feet become œdematous, and finally the œdema attacks the hands. In the majority of cases sloughing and ulceration take place, commencing commonly on the lower extremities. The ulcers, at first small, rapidly extend and increase in depth, and often penetrate to the bones. In one case they occurred on the legs, arms, and on different parts of the body. There is commonly some tendency of blood to the head. The pupils are almost invariably unequal in size. In three cases the patients were occasionally entirely blind, walking directly against the wall, or other obstacle, as if it were not in their way. All of the senses were more or less affected, smell and taste most commonly and in the greatest degree, hearing to a slighter extent. Some of the patients would take rhubarb and magnesia, without distinguishing the taste from that of wine. In all the patients the general sensibility was either obtuse or entirely lost.

Of the mental condition of the patients, one of the most constant phenomena was the exalted sense they entertained of their dignity and importance. They were kings, presidents, generals, etc. This is not uncommon in mania, but in this form of it was almost universal. The patients were not only powerful, they seemed contented and happy. During the past summer the worst patients in the Asylum, the most filthy and destructive, were three men affected with this form of insanity. On account of their habits their garments were of the commonest material and coarsest texture, and their furniture was limited to the straw bed on which they slept. These patients, on being asked if there was anything which they wished, replied, "No, they were perfectly contented and happy." While thus happy, they are commonly irritable, and are readily exasperated. In the early stage of the disease, the patient is often ludicrously eccentric in his conduct. A man who had been sent to the Asylum was removed home a few days afterwards by his wife. On reaching his house he caused a warm bath to be prepared, in which he put the entrails of fowls, Cologne water, pepper, etc., and bathed all his children in it. He afterwards had a soup prepared of nearly the same materials, and fed them with it until they vomited. He was then brought back to the Asylum. Connected partly with the loss of command over the voluntary muscles, is a change which takes place in the hand-writing of the patients. One of them who before his illness wrote a remarkably fine hand, while still able to walk about and converse, asked for a sheet of paper to write a letter to his wife; when the paper was returned, it was found that he had completely covered it with waving lines resembling the pot-hooks of children commencing to write. Another mental peculiarity of the patients is an idea that they have much and important business to transact. They are constantly occupied. One of the patients, a capmaker, confined on account of his filth and violence to a room in which there was nothing but a straw bed, was constantly found in the morning, the straw broken and strewn about, busily employed in cutting out and making up caps, for which he had extensive orders.

The treatment of the disease is merely palliative, and directed to the relief of particular symptoms. Nothing seems to have any effect upon its progress.

On *post-mortem* examination of those affected with this complaint, the arachnoid covering the superior surface of the brain is commonly found opaque and thickened, and there is effusion between it and the pia mater. The vessels of the cineritious matter are commonly a good deal engorged, but Dr. E. has never noticed the darkening and blackening of that matter, like ecchymoses, noticed by French writers. There is almost always softening of the fornix and the parts in its immediate neighborhood. There is degeneration and softening of the middle lobe of the brain. In one case in which it extended to the thalami and corpora striata, the patient, for the last day of his existence, lost entirely the use of all his limbs. The spinal marrow was not examined.

The patients were all of them of middle age. Abroad some females have suffered from the disease, but comparatively the number is small.

Dr. Post stated that there was now in the hospital a curious instance of complete loss of the male genital organs, the penis, scrotum, and testes being entirely gone. According to the patient's account, two years ago he was exposed to intense cold, and the organs were consequently attacked with gangrene. Dr. P., however, has no doubt that the disease is of venereal origin. A simple fissure exists from the mons veneris to the perineum, the edge ulcerated and covered with vegetations. The general health is much impaired, but has improved somewhat since his entrance into the hospital.

Dr. Watts stated a child two years and nine months old had lately been brought to the College by a medical man; that when nine months old, being tied in a chair, it had thrown itself over, the leg being extended, the weight of the child's body and the chair itself had fallen upon the leg. A good deal of swelling had followed, and a country medical man having been called in, pronounced the injury a contusion. On examining the child, Drs. Watts and Parker came to the conclusion that the injury consisted in a dislocation of the head of the bone into the thyroid foramen. The limb was wasted, all the muscles and the ligaments were exceedingly lax, admitting great freedom of motion. The thigh could be doubled up upon the body, and the foot rolled in or out with ease. The limb was of no use in walking, and owing to want of development was an inch and a half shorter than the other.

Regular Meeting, Dec. 19th.

Dr. Buel stated, that he had lately been called to a young gentleman, who complained of fever, restlessness at night, and sore throat.

A cathartic was ordered and he was desired to remain in the house. There was, however, no improvement. He now directed the Doctor's attention to a swelling in the groin, which he attributed to cold. On being questioned, he at first denied having exposed himself, but finally it came out, that six weeks previously, he had had a suspicious connection; that this was followed after an interval of a week, by a swelling in the groin; that the swelling shortly afterwards subsided, and now had returned after four weeks' interval. There had been no sore on the penis whatever. Was the enlargement in the groin a "bubon d'Emblée," and the ulceration in the throat syphilitic? Dr. B. has put his patient in a mild mercurial course. It being suggested in doubtful cases, that inoculation, as practised by Ricord, would determine the syphilitic or non-syphilitic nature of the disease, several instances were mentioned in which that practice had been followed by troublesome sores, even when cauterization had been carefully practised. Dr. Buck stated that there was now in the hospital a young man with a well-characterized chancre on the middle and forepart of the thigh, which had existed for more than two years, and which the patient states had been produced by inoculation, he at the time laboring under primary disease.

Dr. Buck stated, that the patient laboring under scirrhus diathesis, whose case he had mentioned at the last meeting of the Society, had since died, wasted by diarrhœa. On post mortem examination, the body was found very much emaciated. The scirrhus tumours extending from the groin to the inner ankle were well characterized. They were hard, grating under the knife, in texture resembling an unripe choke pear, none of them were softened. The mass which extended into the pelvis, covered the large vessels as they passed over the pubis, and dipping down adhered to the wall of the pelvis. Contrary to expectation, the mesenteric glands were normal, nor was there any degeneration of the lymphatics of the great cavities. The lungs both contained rounded isolated masses of scirrhus, varying in size from a pea to a filbert, and for the most part near the surface. In other respects they were healthy. In the heart a single mass, about the size of an ordinary white bean, existed in the wall of the right auricle. The liver contained three or four masses as large as large filberts, near its surface; other masses existed so near the surface, that they could be felt without cutting into its substance. The pancreas was unaltered, the spleen denser than usual. Nothing was found worthy of notice in the mucous membrane of the stomach and small intestines. The large intestines were thickly scattered with small ulcers with abrupt edges, as if made with a punch. The mucous membrane was not swollen. Scirrhus deposite existed beneath and around the ulcer on the heel.

Dr. Garrish had lately attended a robust young woman, 18 years of age, in her first confinement. The child was born after two hours labour. The placenta was expelled half an hour afterwards. The patient remained comfortable and without any unpleasant symptoms for one hour and a half, when the doctor, who had remained with her, observed her gradually slipping down towards the foot of the bed. The muscles of the face commenced twitching, and the patient became convulsed. *Part of the time* the whole body was in a state of opisthotonos. Twenty oz. of blood were taken from the arm, causing syncope, cold was applied to the head, two leeches were ordered to each temple, and ten grs. of calomel were administered internally. After the convulsion was over, she soon became sensible. In thirty minutes she was seized with a second fit. The vein was reopened and fifteen oz. blood taken, when syncope took place. An enema was administered, but without effect. There was no further return of the convulsions.

Dr. Post early last week, had been desired to see a patient in consultation, and to bring his obstetric instruments with him. On reaching the patient, he found that she was dead, and received the following history of the case. The patient had previously had two children. The first was delivered by instruments and was still-born. The second labor had been difficult, but the child had been born alive. Her physician, who had not previously attended her, was called to her on Saturday and remained during the night. On Sunday it was ascertained that the head presented, but the superior strait seemed contracted and the labor made very little progress. Towards night as the pains were very violent, and the child did not advance, the patient was bled and an anodyne ordered, after which the physician retired to get some necessary rest. In the morning, on seeing the patient, he found that not only the anodyne which had been ordered, had not been given to the patient, but that the women around her had given alcoholic drinks to increase the violence of the pains. About noon the patient complained of a sudden severe pain in the side like a stick, the pains began to diminish, and soon ceased entirely. At two o'clock, p. m., she died. Dr. P. immediately pronounced the case one of rupture of the uterus. On post mortem examination, it was found that the neck of the uterus was torn across, the rupture extending half way round the organ, the head was impacted in the pelvis and had not receded. The body and limbs of the child with the placenta were in the peritoneal cavity.

Dr. Post then related a case of amputation at the shoulder-joint, in a woman 68 years of age, who had been severely burnt on Friday last, by her clothes taking fire in consequence of the falling of a stove. The left arm was charred, the burn extending from the wrist to the shoulder, and on the under side of the arm into the axilla and upon the anterior surface of the chest. The patient was lethargic, with a small frequent pulse, and a cold skin. Brandy was taken freely, but the patient would swallow very little food. A distinct line of demarcation formed, but there was very little improvement in the circulation. After a consultation, it was determined to remove the limb. The operation was performed on Tuesday. A small piece of sound skin existing about the acromion was left, but the stump remains uncovered, as in the axilla the incision was carried through the burnt surface. In all about three or four oz. of blood was lost during the operation. The patient took stimuli and nourishment with great unwillingness and in small quantity. On the following morning she was induced to take some egg-nog with a piece of milk-toast, and her pulse fell from 150 to 130, and became fuller. After this she again refused both food and stimulants, and died on the Thursday following. Dr. P. has several times noticed this repugnance to take food and stimulus after severe accidents, when it was seemingly of great importance.

Dr. P. was called on Saturday to a case of tertiary syphilis, showing the remarkable interval that may exist between the primary and tertiary forms of the disease. Twelve years ago the patient contracted primary syphilis, no secondary disease followed, and he remained for seven years, to all appearance, perfectly well. At the end of that time he was married. He afterwards was attacked with sore throat, which did not yield to treatment, and which spread along the pharynx and fauces to the nose wings, cartilages, and membranes all giving way before it. It then invaded the upper lip, extending to the angle of the mouth. There was a small opening leading to the nasal cavity, and below this an ulcerated surface extending nearly to the vermilion border of the lip. He has been now several years married, and has healthy children, one of them only a few months old.

Dr. Stewart stated that he had lately operated for lithotripsy on a lady from 45 to 50 years of age. She had been married at 20, and for ten years had not become pregnant. She was then injured by the overturn of a stage-coach, the pelvis being fractured. On her recovery she conceived, and was delivered by instruments. The symptoms of calculus afterwards developed themselves. The urethra was excessively irritable, but this was gradually overcome, the passage accustomed to the use of instruments for a short time previous to the operation, the bladder was daily injected with tepid water. On Wednesday the operation was performed with Jacobson's articulated brise-pierre. After the operation, the patient had a child. Since then she has done well.

Dr. Blakeman stated, that he had lately had a number of cases of dysentery, as many as twelve, eight of them occurred in one family, and one case was fatal. An unusual occurrence at this season of the year.

Dr. Greene stated, that a lady five months advanced in pregnancy, suffered a good deal from sickness at the stomach. One night on retiring, she took, as she thought, a little soda, but she perceived it had an unusual taste. Her husband on being appealed to, likewise perceived that it was not soda. She commenced vomiting, and despite the measures of a practitioner who remained with her, the vomiting continued nearly the whole night. In the morning Dr. G. found her much prostrated. On examination, the source of the mischief proved to have been arrow-root.

The following resolutions were then offered by Dr. Vandervoort :—

Resolved,—That in the deliberate opinion of this Society, the employment of all remedies, the exact nature of which is kept concealed, as well from the public as from the profession, is a departure from the strict line of medical ethics, and at variance with the true dignity and lofty character of the profession.

Resolved,—That the practice heretofore and at present, too much in vogue, of granting letters of recommendation upon subjects not purely medical, no less than upon those which are so, is fraught with evils of a serious nature, and is eminently calculated to foster the tendency to charlatanry, now too rife amongst us.

Resolved,—That the members of this Society have of late witnessed with deep sorrow, the encroachments which have been made upon the hitherto well-defined boundaries of the profession, they do now and henceforth discountenance all such proceedings, and will regard all who participate in them as acting contrary to the common weal and best interests of those engaged in it.

PART SECOND.

Critical Analysis.

Art. X.—*The Institutes of Medicine.* By Martyn Paine, A. M., M.D. Professor of the Institutes of Medicine and Materiæ Medica in the University of New-York, etc. New-York, Harper & Brothers, 1847. 8vo., pp. 826.

The author of this work has attempted a hazardous and Herculean task, one which we sincerely believe no other physiologist would dare to undertake, we mean a defence of the doctrines of *exclusive solidism.* The Sisyphean effort of rolling the body of vitalism up the steep acclivities of fact and argument, has been reserved to the present age, and to the author of "The Medical and Physiological Commentaries," with what success, we may not say, another generation. if not the present, will decide the issue, and mete out justice with an even balance. But whatever may be the merits of this great and momentous question, we have always cheerfully conceded the consummate skill and learning with which the controversy has been maintained, by the laborious and indefatigable author of the present work; to say that there is not to be found in the whole compass of medical literature, in this or other languages, such an array of facts and learning, of compact logic and far-reaching illustration, in defence of vitalism, as abound in the author's writings, is saying no more than will be granted by every one who has carefully surveyed the whole ground. The peculiar characteristics of the writer's mind are displayed on every page of his works; confidence in the truth of his cause, ardor and zeal in its pursuit, daring, if not contemptuous defiance to his opponents; these shine forth in every chapter and page, and are well calculated to beget conviction in the mind of the reader. The author announces that the "humoral philosophy has almost universal sway in Great Britain and France," he might have truly added, and in this country also. It remains to be seen whether his facts and reasoning shall effectually resist their sway, and reconquer the realms which a spurious philosophy, so-called, has won. We are told that if the present doctrines had been permitted to address themselves to the reason of mankind, truth would have enjoyed, at least, an equal chance with error; but the opposing school decided that it should be otherwise, etc. (p. 515). This imputation we fear will be deemed unjust, sweeping as it is, and is rather calculated to injure than sustain the cause which the writer advocates. The charge of infidelity, also, against the editors of the leading foreign reviews, had better have been spared, even were it founded in truth, which we do not believe; an imputation of unworthy motives, is an easy way to prejudice an opponent, but a still better way to prejudice him who makes it. We sincerely trust, that these and other passages of similar bearing, may be expunged from future editions.

The great body of the present work is devoted to an exposition of the principles of PHYSIOLOGY, commencing with the "*Composition and Structure of the Body*," and taking up successively the "*Vital Principle and its Properties*," "*The Mind and Instinct, and their Properties*," "*The Common and Peculiar Functions*," "*Vital Habit*," "*Age*," "*Temperament, Constitution and Idiosyncrasy*," "*Races of Mankind*," "*Sex*," "*Climate*," "*Habits and Usages*," "*Relations of Organic Beings to External Objects*," "*Death.*" The second part treats of PATHOLOGY under the heads of "*Remote Causes*," "*Pathological or Proximate Cause*," "*Symptoms*," "*Morbid Anatomy*," "*Inflammation*," "*Fever*," "*Venous Congestion*," "*Humoralism.*"

The last part treats of THERAPEUTICS, under the heads of "*Cathartics*," "*Astringents*," "*Tonics and Diffusible Stimulants*," "*Antispasmodics*," "*Cinchona and its Alkaloids*," "*Arsenic*," "*Iodine*," "*Ergot*," "*Emmenagogues*," "*Diuretics*," "*Expectorants*," "*Counter-Irritants*," "*Remedial Action, its General Philosophy*," "*The Seton*," "*Local Sedatives*," "*Warm Poultices, Genito-Urinary Agents, Uterine Agents, Blood Letting, etc.*"

A very full index of nearly fifty pages, enables the reader to turn readily to every subject treated of, and adds very much to the value of the work as a book of reference. Our limits do not allow, nor does the nature of the work admit, of an extensive analysis, apart from its controversial character, which we regard as a serious blemish, we can cheerfully commend it as embodying a vast amount of useful information, equally valuable to the student and practitioner of medicine. With the "COMMENTARIES," it will go down to late posterity, a monument of industry, genius, and consummate learning; an armory from whence the vitalist will draw his weapons of offence and defence, in all time to come.

ART. XI.—*A System of Human Anatomy, General and Special.* By ERASMUS WILSON, M. D., Lecturer on Anatomy, London. Third American, from the third London edition. Edited by PAUL B. GODDARD, A. M., M. D., Prof. of Anatomy, etc., in the Franklin Medical College of Philadelphia. With two hundred and thirty-three Illustrations by GILBERT. Philadelphia, Lea & Blanchard, 1847. 8vo., pp. 610.

IN the fall of 1844 we had occasion to notice the first edition of this work, since that time it has passed through two editions, and now its enterprising publishers have laid before us the third. The opinion then expressed, and recommendation offered, by the late much-lamented editor of this journal has been fully verified and adopted; as in many, if not all of the Colleges throughout the Union, it has become the standard text-book. This of itself is sufficiently expressive of its value. The present edition "is a careful and exact reprint" of the last edition of the English work, to which many "improvements and alterations" have been made by the author, "with the addition of such other illustrations as were deemed necessary to a more complete elucidation of the text" by the American editor; all of which render the work very desirable to the student—one. the possession of which will greatly facilitate his progress in the study of practical anatomy. The typographical execution compares well with the former editions.

S. S. P.

Art. XII.—*Handbook of Human Anatomy, General, Special, and Topographical. Translated from the original German of* Dr. Alfred Von Behr, *and adapted to the use of the English student.* By John Birkett, Fellow of the Royal College of Surgeons of England, and Demonstrator of Anatomy at Guy's Hospital. pp. 487. Philadelphia: Lindsay & Blakiston, 1847.

This work, we are informed by the author, "is intended to afford the student a short and comprehensive detail of anatomical facts, suited to the practical tendency of The Pocket Encyclopædia of the Medical Sciences," by Dr. Minding and himself, now in the course of publication at Erlangen. The necessity of a set of class-books, short, concise, and purely elementary in their character, has long since been felt and wished for. We say this without intending in the least to reflect discredit upon the many truly valuable works which have already been presented to the profession; they are excellent, and well calculated and adapted to the use of the student during the interval of his absence from lectures. Then it is that he has more leisure, and can read the more elaborate works, but when fully engaged in his collegiate studies it is extremely necessary that he should possess text-books having the character we have just spoken of. The work before us, as its title indicates, treats of General, Special, and Topographical Anatomy. Of the first division, viz., General Anatomy, very little, if anything, is said in the former text-books on anatomy, if we except Dr. Wilson's, where the addition is made by the American editor. The importance of a good understanding of general anatomy to the pathologist should at least demand for it a passing notice from the student of medicine. The value of the doctrines taught by Bichat, and the discoveries since made by the use of the microscope in the study of this branch of anatomy, must be admitted by all. The sudden impulse given to the science of physiology and anatomy, since 1838, when Schwann presented to the profession his views and discoveries in relation to the elementary forms of the human body, demand of those who are desirous of keeping pace with the discoveries of the age, a more unreserved attention. It would be pleasing, had we sufficient space, to give an extended analysis of this portion of the work; but a single quotation must suffice:—

"a. *Elementary parts.*

"13. The first form from which matter is developed, and which lies as the basis of every organic structure (vegetable and animal), is, according to the general principle first enunciated by Schwann, 1838, the

"*Nucleated Cell*, that is, a microscopial, delicately membranous vesicle, with fluid contents and a minute dark nucleus (Cytoblast) in one of its walls, surrounded by an amorphous, solid or fluid, substance (Cytoblastema or Intercellular substance), out of which the nucleated cell forms itself.

The *nucleus* is round or oval, rather flattened, yellowish red, smooth or granular, has a diameter of 0·002—0·001''' and probably first arises, as the granules are deposited from the amorphous mass about a central point. are circumscribed and blend together. About the nucleus formed from the mass a membrane is generated, the vesicle of the cell [cell membrane].

"14. This process of development may at least be observed in the egg [germ] of vegetables and animals, in the formation and reproduction of certain tissues (for example, the nails and cuticle). Also in the blood, in pus, and in milk, the process is essentially the same. The formation of the elementary granules may be compared with the physical phenomenon, discovered by Ascherson, namely, that when albumen was brought into contact with fat (oil drops) it coagulated in the form of a membrane, and enveloped them. But the vital and self-dependent progressive development of the nucleated cell is in no degree explained by this.

"15. *Increase of the Cells.*—The number of the cells in a tissue in the process of development, increases either by the origin of single new ones independent of one another (*e. g.*, in the hair, nails, inflammatory exudation); or by the development, in the interior of the old and mature, of new secondary cells, to which the contents of the primary cell serve as cytoblastema. (Thus, in the development of the liver, and in pathological growths; *e. g.*, Scirrhous.)

"*Metamorphosis of Cells.* As the cells pass through various stages of development, they also present different circumstances in respect to their shape, position, contents, and chemical relations. In some tissues they maintain their independence, at most lying upon one another, and becoming thereby flattened, or elongated and pointed (*e. g.*, in the granular pigment, in the blood, in the muscular tunic of the intestines). Others attain a size of more importance (fat cells), or diminish in size (the lymph globules, if they become changed into blood corpuscles); they lose after a time their nucleus (the mature blood corpuscles); their parietes become thickened (cartilage cells)."

The second division, Special Anatomy, can best be illustrated by a quotation or two, which we give:—

"*Os humeri* s. *brachii*, Bone of the upper arm.

"Position: between shoulder and forearm, on the sides of the chest.

"Length: reaching downwards to the second Lumbar vertebra, farther in Negroes.

"Direction: parallel with the axis of the trunk, yet rather oblique from above downwards, and without inwards.

"Figure: tubular, cylindrical.

"Connection: with the shoulder-blade and the forearm.

"a. Superior extremity with: 1. *Caput humeri*, a segment of a sphere, $\frac{1}{3}$; lies in the *Cavit. glenoid. scapulæ*, is surrounded by a circular flat groove, the *Collum humeri* of *Anatomists*, and forms an obtuse angle with the axis of the shaft of the bone. 2. *Tuberculum majus*, on the outer side, with three surfaces, for *m. supra-*, *infraspinatus*, et *Teres minor*. 3. *Tuberculum minus*, anterior, for *m. subscapularis*. 4. *Sulcus longitudinalis*, between the two tubercles, for the tendon of the *Caput long. bicipitis*. 5. *Spina tuberc. major*, for *m. pect. maj.* et *deltoid.* 6. *Spina tuberc. min.*, for *m. teres maj.*, *latiss. dorsi*, et *coraco-brachial.* 7. *Collum humeri chirurgorum* at the superior sixth of the humerus and the point of transition into

"b. The middle piece, *the body*. Superior half cylindrical, inferior, triangular, prismatic.

"1. Surfaces: external, below the superior third, a V shaped depression, for *m. Deltoideus*. Internal anterior surface, for *m. brachialis internus*, oblique from above, downwards, and from before, inwards, the course of the *Art. brachialis*, presents: *Foram. nutritium*. Posterior surface below very broad, for *m. triceps*.

"2. Edges, angles. Anterior, roundish, rough, the commencement of *spina tuber. major*. External, above indistinct, below, sharp, before curved, for *cap. intern. tricip.* et *supinator longus*. More obliquely below, likewise, sharp—from *Spina tuberc. minoris*—for *cap. intern. tricip.*

"c. Inferior extremity flat, broad; presents, from without inwards: 1.

Condylus externus, for the *extensor* and *supinator muscles.* 2. *Eminentia capitata* s. *rotula*, the small articular head, unites with the Radius of the fore-arm. 3. *Trochlea*, it receives the Ulna. Above it we find *Fossa ant. maj.* for *Proc. coronoideus ulnæ*, *minor*, for the *radius*;—posterior, for *Olecranon.* 4. *Condylus internus*, for the *flexor muscles*, *pronator teres*, and *palmar. long.*, behind with a flat groove, for *nerv ulnaris.*

"Structure. At the extremities spongy tissue, in the body compact substance and medullary cavity.

"Development commences early, second month, in the centre; both extremities still remain cartilaginous in the second year; then at the superior extremity, for *caput* and *tuberc. majus et minus.* three osseous nuclei appear; lastly, at the inferior extremity four osseous centres. In the eighteenth to the twentieth year the extremities first unite with the centre piece, the inferior soonest."

The following is an illustration of the description of the muscular system:—

"*Coraco-brachialis* (s. *perforatus Casserii*).

"Pos.: above, under *deltoideus*, in the centre between *pectoral. maj.* and *latissim. dorsi*, below at a similar elevation as the tendon of *deltoideus;* covers above, *Art. axillar.* and *brachial.*, *Nn.*, *medianus* and *musculo-cut*, lies below to the outer side of *Art. brachialis.* Or.: *Proc. coracoideus* (apex). Ins.: *Os humeri* (inner border and centre) between *anconæus quartus* [short head of triceps] and *brachial. internus.* Use: presses the scapula and humerus towards one another; assists in drawing the arm to the chest. Antagonist to the rotators.

"Nerves: (first to third) *musculo cutaneus.*"

The third division, Topographical, or the Anatomy of Regions, occupies about forty pages. The following will illustrate the manner in which this portion of the work is treated:—

"Lateral surfaces of the Neck, *Reg. supraclavicularis.*

"*Reg. sterno-mastoidea.* The *sterno-cleido-mast.* is covered by a loose fibro-cellular tissue, in which the *ven. jugular. extern.* descends from before backwards. It covers:

"a. Below (the *m. omohyoideus*): 1. Loose fibro-cellular tissue, wherein is a branch of *ven. jugul. extern.* (anter.) 2. The deep layer of *fasc. cervical.* and *m. omohyoideus.* 3. The external border of *m. sterno-hyoid.*, and *thyreoideus.* 4. The junction of *vv. jugular. intern.* and *extern.* behind *articul. sterno-cleidoidea* (in the angle the *duct. thoracicus* opens). 5. *N. phrenicus* outside (close to *scalenus antic. m.*), 1″ distant from *n. vagus* (close to *carotis commun.*); between the two, *n. sympathicus.* 6. Right, the superior extremity of *truncus anonymus* (*carotis.* and *art. subclav. dextra*); left, *carotis comm.*, *art. subclav. sinistra.* 7. Right, *n. recurrens;* left, *ductus thorac.*, the superior extremity of the pleura. 8. *M. longus colli* and vertebral column. The *carotis* lies 1″ removed from the anterior border of *m. sterno-cleido-mast.*; the right rather *nearer.*

"b. Above (between *omohyoid.* and *splenius*): 1. *Plex. cervical.* 2. *Art. cervical. ascend.*, *m. rect. antic. cap. magn.*, *scalena*, *levat. scapul.*, *splenius colli.* 3. *Proc. transversi* and *art. vertebralis.* Quite above, *splenius capitis*, &c.

"2. *Trigonum cervicale inferius*, supraclavicular fossa, a triangle, the base of which is formed by the claviculæ (the first rib), the sides by the anterior border of *m. cucullaris* and the posterior of *sterno-cleido-mast.*, and which is divided by the post. belly of *m. omohyoideus* into an inferior smaller, and a superior larger triangle.

"Position of the parts: 1. Skin, *m. platysmam.* 2. Before, *v. jugular. extern.*; above, *nn. subcutan. colli, accessor. Willisii.* 3. *M. omohyoid.* and the deep layer of *fasc. cervicalis.* 4. *Art. transversa colli, supraclavicular., ven. subclavia* (between the first rib and clavicle). 5. In front, *scalenus anticus* (on the internal border of which *n. phrenicus*); behind, *scalenus med.* (and *post.*); between the two, above and outside the origin of *plex. brachialis*; below and within, *art. subclavia*, upon the first rib, close to the tubercle, separated by *scalenus antic.* from *ven. subclavia.* External to the *scaleni* the artery lies close behind the vein, in the direction of *m. omohyoid.* 6. The transverse processes of the cervical vertebræ, *mm. intertransvers.*, *art. profund. cervic.* and *vertebralis.*

"Posterior surface of the neck, nape, *cervix.*

"[*Dissection.* 1. An incision should be made in the middle line, through the skin only, from the chin to the sternum. 2. From the mastoid process to the acromion. 3. From the mastoid process to the centre of the upper border of the sternum.

Two triangular flaps of skin are thus formed, attached by their bases, the one, above, to the horizontal ramus of the lower jaw; the other, below, to the clavicle. These are to be reflected upwards and downwards. The *platysma myoides* is to be dissected, the course of the external jugular vein examined, and the muscle divided transversely and reflected. The parts above described occupying the various regions, the boundaries of which should be accurately defined, may be now exposed and dissected in succession. TRANS.]"

The value of this portion of the work is much increased by the additions of the English editor, who has given short and concise descriptions of the best mode of dissecting the several parts or regions. Taken as a whole, the work, the short review of which we have now given, has exceeded our expectations, and is admirably adapted to the end desired by the author. We would most heartily recommend it to the medical student of our country, as a text-book during their attendance upon lectures. The size is convenient, the index full and complete, and for typographical execution we have seldom seen its match. Our thanks are due the publishers for presenting it to the American profession. S. S. P.

ART. XIII.—*The Principles and Practice of Ophthalmic Medicine and Surgery.* By T. WHARTON JONES, F. R. S., Lecturer on Anatomy, Physiology and Pathology at the Charing Cross Hospital. Foreign Member of the Royal Medical Society of Copenhagen, etc., etc. With one hundred and two illustrations. Edited by ISAAC HAYS, M. D., Surgeon to the Wills Hospital, etc.—Philadelphia: Lea and Blanchard. 1847. 8vo., pp. 509.

THIS is one of a series of manuals published by Mr. Churchill of London, and republished in this country by Messrs. Lea & Blanchard, "the design of which is to furnish to the student, within a small compass, a complete and comprehensive digest of the several subjects of which they treat." The reception of the works of Drs. Carpenter

Wilson and others, prove how well the design has been carried out in the works heretofore published. The author of the work before us is already favorably known to the profession by his previous contributions to ophthalmic medicine and other subjects belonging to medical science. Mr. Jones' qualifications for the successful performance of the task undertaken, would lead us to expect a complete digest of the practical facts relating to the pathology and treatment of the diseases of the eye. In this expectation we are not disappointed. The treatise presented to the profession, by Mr. Jones will, we hope, be introduced into the medical schools, and become the text-book of the student for a long time to come ; from it the practitioner of medicine, who is engaged in active business, and who has not time to refer to the more elaborate works of Middlemore, Lawrence and Tyrell, will find here the *practical facts* necessary to guide him in treating the various morbid conditions of the eye.

Mr. Jones commences the introduction to his work by giving a very short sketch of the peculiarities, history and literature of ophthalmic medicine and surgery. Chapter first is divided into two sections, the first treats of "Ophthalmoscopy, or Exploration of the Eye, in order to a diagnosis." Section second, of the "Application of Remedies to the Eyes or their neighbourhood, and performance of minor operations on them." In this last section the author has some judicious and excellent observations on the use of cold and warm applications, which we copy :—

" *Cold applications to the Eyes.*

" *Cold lotions.*—Cold spring water is the best cold lotion. It is applied by means of compresses of old linen or lint, which should be broad enough to extend over the neighboring parts as well as over the eye, but not so heavy as to press unpleasantly. When once commenced, the application of the cold lotion requires to be assiduously kept up as long as is necessary, one compress, as soon as it becomes warm, being replaced by another just taken out of the water.

"*Cold douche bath.*—This consists in a fine stream of cold spring water allowed to play on the closed eye and neighboring parts. The application may be continued for about a quarter of an hour at a time. There are particular douche apparatuses. A simple form of one may be readily constructed with a glass tube of the thickness of a barometer tube, and from three to three and a half feet long, bent like a syphon six inches from one end, whilst at the other it is drawn out small, and also bent, but only for about two inches ; the short limb of the syphon being immersed in a vessel of water placed at a convenient height, the air is sucked out at the small end, when a fine stream of water will issue from it.

" *Dry cold.*—In the weak and rheumy eyes of old persons, and in a similar state remaining after an attack of ophthalmia, it is often agreeable, and indeed, productive of great relief, occasionally to draw some cold body across the eyelids. For this purpose a long slender bottle with a smooth round bottom, and filled with ice, has been recommended.

" *Warm applications to the Eyes.*

"*Warm cataplasms and fomentations.*—As applications to the eye, fomentations are much more convenient and elegant than poultices. Warm water simply may be used for the purpose, or chamomile decoction, poppy decoction, and the like. The application is made by means of compresses, as just described for cold lotions. The application requires only to be made occasionally, and that merely for a period of from five minutes to a quarter of an hour at a time. Warm cataplasms and fomentations should never be allow-

> ed to become cold on the eyes. After their removal, the eyes are to be gently dried with a soft linen cloth, and care taken that they be not exposed to a draught of air.
>
> "*Watery vapors.*—In order to receive watery vapors on the eyes, the patient holds his face over a vessel containing hot water; a cloth being thrown over all. When it is wished to have steam play more directly on the eye, a funnel is inverted over the vessel, and the tube directed towards the eye at a proper distance. After the application, the face and eyelids are to be well dried, and exposure to any draught of air carefully avoided."

This section also treats of the removal of foreign particles or substances from the eye, a part of which we give:—

> "Caustic, or hot substances, whether solid or fluid, getting into the eye, so quickly exert their action, that much, if not all, the injurious effects have already occurred before means can be taken for their removal.
>
> "While solid caustic substances are still in the eye, the best application to make in the first instance is sweet oil. After that, the surgeon may proceed to remove the foreign substance, and to effect this some pains will often be required, especially if it has been lime or mortar, for the particles of these substances are apt to adhere very closely to the conjunctiva. Exploration of the palpebral sinuses should not be neglected lest pieces may have lodged there. After the eye has been freed as completely as can be done from particles of lime or mortar, water should be injected into the eye in order to carry away what remains of the caustic may exist.
>
> "When gunpowder has been exploded into the eye, besides the burn which results, the grains may fix in the conjunctiva and in the cornea—in which case, unless carefully picked out, they will leave indelible marks and opacities.
>
> "Particles of such substances as potass, nitrate of silver, etc., getting into the eye, quickly become dissolved in the tears, and their injurious operation may spread like that of a caustic fluid, before they can be removed.
>
> "In this case, and in the case of caustic fluids, the application, in the first instance, should be some substance calculated to decompose them and render them inert, so as at least to arrest their further destructive action; thus, in the case of sulphuric acid, which has sometimes been thrown into the eyes of persons with a criminal intention, a solution of subcarbonate of soda—gr. iv. aq. ℥j, or magnesia suspended in water, should be immediately used as a lotion and injection for the eyes.
>
> "Simply hot substances, such as melted tallow, pitch or lead, quickly cool of themselves, and all that requires to be done in the first instance is their removal. If pitch cannot be readily removed, sweet oil will promote its separation."

Chapter second treats of "Ophthalmic Inflammation." In section first of this chapter, Mr. Jones has taken the opportunity to speak of "Inflammation in general," giving a short account of its phenomena, terminations, varieties, and mode of action of remedies in inflammation. The remaining sections of this chapter treat of the inflammation of the eye and its consequences.

Chapter third treats of "Dropsies, Tumors, Cancers, etc., of the Eyeball," "Cataract, Operations for Artificial Pupil and congenital defects of the Iris and Pupil." Chapter fourth, of "Abnormal states of the Optical Refractions and Adjustments of the Eye, and Vision of Object in and on the Eye." Chapter fifth, of "Amaurotic Affections," "Impairment and loss of Sensibility of the Optic Nervous Apparatus, or Amaurosis in its various degrees," and "Glaucoma and Cat's Eye." Chapter sixth, of "Loss of Correspondence of the Sensations and Movements of the two Eyes." Chapter seventh, of "Inflammations and Ulcerations of the Eyelids," of "Abnormal position of the Eyelids, Misdirection of the Eyelashes, Irregularity and loss of Movements of the Eyelids," etc.; "Morbid connections of the Eyelids," "Tumors, Cancer, etc., of the Eyelids and Eyebrows." Chapter eighth, of "Diseases of the Conjunctiva," and "Diseases of the Semilunar Fold and Lachrymal Caruncle." Chapter ninth, of "Diseases of the Lachrymal Organs." Chapter tenth, of "Diseases of the Orbit;" and Chapter eleventh, of "Injuries of the Eye." There are some portions of this chapter that we cannot refrain from quoting here. In speaking of this subject, Mr. Jones says:—

"Chips of pure metal, splinters of glass, stone, hard wood, and the like, projected against the eye, often stick, more or less deeply, in the cornea, or even wholly penetrate it, and lodge in the interior of the eye. If a part of the foreign body remains projecting, very great irritation ensues, but if the body has sunk fairly in the substance of the cornea, it may produce little reaction, or, becoming enveloped in a capsule of lymph, may cease to be a cause of irritation, and the inflammation, to which it has given rise, subside, the cornea at the part remaining opaque. More frequently, however, ulceration of the cornea takes place around the foreign body, which thus becomes loose at the bottom of the ulcer, requiring but a touch for its detachment.

"When a chip of pure iron sticks in the cornea, and is allowed to remain any time, it becomes oxydated, and tinges the adjacent cornea of a brown color.

"If any part of a foreign body which has penetrated the substance of the cornea projects, it is to be seized with a forceps and drawn out; but if it does not project, it is necessary to use a pointed instrument, such as a large and rather blunt cataract needle for its dislodgment. In doing this, great care should be taken not to cause any abrasion of the cornea, and never to scrape it, with the intention of removing, for instance, the brown speck left by the oxydation of a fragment of iron—as such a speck it is well not to interfere with.

"When the foreign body is irregular in shape, and has penetrated the cornea obliquely, and to some extent, it may be necessary to make an incision with a cataract knife, so as to expose the body, which is then to be seized with a forceps, or turned out with the spatula.

"It is to be observed, that when a foreign body cannot be readily got at, attempts at extraction should not be continued too long, for more injury may result from this than from the presence of the foreign body. By and by it will become loose, and may then be more easily extracted.

"*Abrasions of the cornea.*—Though the surface of the cornea may be touched without inconvenience, a sudden wipe on it, with a handkerchief, for instance, causes considerable uneasiness, lachrymation, and intolerance of light for a time.

"Abrasion of the cornea is sometimes produced by a scratch of the finger nail, or by awkward attempts to remove a foreign body; or it is the result of a stroke with an ear of corn, an accident to which reapers are much exposed."

"*Treatment of inflammation excited by injury of the cornea.*—The inflammation may be very slight and readily subside by rest, cold lotions, and antiphlogistics.

"The result of injury of the cornea, however, even when trifling in degree, is not always so slight. The inflammation is sometimes severe, obstinate, and dangerous, involving not only the cornea itself, but also other parts of the eye, both external and internal. The membrane of the aqueous humor is particularly liable to suffer; and iritis on the one hand, and inflammation of the proper substance of the cornea, ending in purulent infiltration, on the other, are not unfrequent complications.

"A severe form of inflammation is often met with in reapers, who have had the cornea abraded by a stroke from an ear of corn, though a similar inflammation often arises from other injuries of the cornea. The patient presents himself to the surgeon with the cornea muddy and of a greenish-yellow hue, the iris discolored, and pupil contracted, with considerable conjunctival and sclerotic injection, such as is seen in catarrho-rheumatic ophthalmia. These objective symptoms are accompanied by fever, severe circumorbital or temporal pain, aggravated at night, and dimness of vision.

"If the inflammation be allowed to run on, or if treatment fail to arrest its progress, purulent infiltration of the cornea, hypopyon, and effusion of lymph into the pupil, may take place singly or together. The ultimate result is loss of the eye, either by the bursting of the cornea and the formation of staphyloma, or by atrophy.

"In such a case mercury is our principal remedy, after the abstraction of blood. The extent to which venesection should be carried ought to be carefully regulated by the circumstances of the case; it is not to be dreaded too much on the one hand, nor, on the other, pushed, by repetition, too far. The pupil is to be kept dilated by belladonna, smeared on the eyebrow; and when the progress of the inflammation is arrested, the exhibition of bark, as a general remedy, and the application of the drops of the bichloride of mercury with vinum opii as a local remedy, will powerfully promote the cure.

"In illustration of the dangerous nature of the inflammation which is apt to take place in consequence of abrasion of the cornea in reapers, it is mentioned by Professor Walther, of Munich, in a small work, published thirty years ago, that in the Isar district of Bavaria from fifty to sixty eyes used to be annually lost, during harvest, from this cause."

On the subject of "Poisonous Wounds, and Burns and Scalds," Mr. Jones remarks:—

"When the eyelids happen to be stung by wasps, bees, or the like, there are considerable swelling and irritation, sometimes severe erysipelatous inflammation of the part, ending in the formation of a small slough.

"If the sting of the insect has been left in the wound, an attempt should be made to extract it. Whether this proves successful or not, the part is to be rubbed with olive oil, and covered with cloths wet with a fresh-made solution of the hydrochlorate of ammonia.

"If there is any general disturbance of the system occasioned by the injury, a glass or two of wine may be taken, or a few drops of ammonia in sugared water occasionally.

"*Malignant pustule*, which might be brought under the head of poisoned wounds, has been already treated of.

"*Burns and scalds.*

"Scalds of the eyebrows and eyelids, in which the texture of the dermis is not injured, are of comparatively small consequence, except in so far as the conjunctiva may be complicated. Slight burns may be also unimportant in their effects, but when the burn is so severe that the dermis is injured, then there is great danger of such contraction taking place, in cicatrization, as to occasion lagophthalmos or ectropium.

"To oppose as much as possible the tendency to contraction during cicatrization, the eyelids must be kept closed, luxuriant granulation encouraged, and cicatrization retarded.

"Another danger of burns, and this is also the principal danger from severe scalds, is, supposing the eyeball to have escaped, anchyloplepharon, when the borders of the eyelids have been rendered raw, and the patient allowed to lie with his eyes closed."

Besides the contents already spoken of, the work before us contains a "Glossary," and a copious index; six pages are devoted to the former, which contains a definition of all the technical terms used in the body of the work. Twenty-three pages are devoted to the index.

The additions by the American editor (who has performed a similar but more laborious task in the work of Mr. Lawrence to the complete satisfaction of the profession,) add much to its practical value.

The typographical execution of the work is excellent. The illustrations have been carefully engraved after the originals, by Gilbert, all of which greatly facilitate the reader in gaining a correct idea of the words of the text. It is with feelings of much satisfaction that we rise from the perusal of the work of Mr. Jones, and we can but wish for it a wide and extended circulation. S. S. P.

ART. XIV.—*New Elements of Operative Surgery.*—By ALF. A. L. M. VELPEAU, Professor, etc.; carefully revised, etc.; with a Treatise on Minor Surgery, illustrated by over two hundred engravings, incorporated with the text; accompanied with an Atlas in quarto, of twenty-two plates, etc. First American, from the last Paris edition.—Translated by P. S. TOWNSEND, M.D., etc.—Augmented by the addition of several hundred pages of entirely new matter, comprising all the latest improvements and discoveries in Surgery, in America and Europe, up to the present time. Under the supervision of, and with notes and observations by, VALENTINE MOTT, M. D., etc.—In 3 vols. Vol. III. pp. 1162, N. York. S. S. & W. Wood, 261 Pearl-street, 1847.

THROUGH the indefatigable and praiseworthy exertions of the able translator, Dr. Townsend, we now have the pleasure of noticing the appearance of the third and last volume (with an Atlas of beautifully-executed Plates), of the great surgical work of Velpeau. As the work has already received two extended notices in our pages, at the hands of one of our contributors, it will be unnecessary to enter upon a full analysis of its remaining contents.

The first chapter of the work is devoted to the subject of *Lymphatic Tumors*, and twenty-five pages are devoted to the discussion of their treatment, under the heads of:—1. *Crushing.* 2. *Setons.* 3. *Extirpation.* The 2d chapter takes up the subject of *Neuromatic Tumors;* this is followed by *Lipomas*, or *Fatty Tumors*, (*Wens*): *Elephantine Tumors; Hematic Tumors; Cysts;* (*Sebacious, Hematic, Serous, Synovial, Osseous, and Cartilaginous*).

Next follow chapters on *Fibrous, Cancerous, and Bony Tumors.*

The remaining portion of the volume is occupied with a consideration of the *Ligature in Mass; Foreign Bodies; Special Operations on*:—1. *The Head.*—2. *Face.*—3. *Diseases of the Mouth.*—4. *Olfactory Apparatus.*—5. *Auditory Apparatus; Operations on the Neck; Air Passages; Alimentary Passages; Chest; Abdomen; Hernia; Organs of Generation* (Male and Female); *Urinary Apparatus* (Calculi); *Diseases of Urethra*, including Catheritism, Contraction of the Urethra, Puncture of the Bladder, Urinary Fistulas; *Diseases of the Rectum.* Lastly, a copious Index to the three volumes. At the conclusion of the volume, we find several pages of interesting remarks from Professor Mott, on *Spina Bifidi* and *Immobility of the Jaw*, characterized with the usual good sense and practical tact of our distinguished countryman.

Did our limits permit, we should be pleased to give a more full account of the contents of the present volume, but as we take it for granted, that the work will speedily find a place in the library of every medical man, who has the slightest ambition to keep pace with the progress of surgical pathology and practice, we deem any extended analysis unnecessary.

Nor have we the slightest disposition to show our critical acumen, by an attempt to find flaws, or point out errors. In a work of such magnitude, it would be strange indeed, if such did not exist; that they are more numerous, or of greater magnitude than may be found in many standard works of a similar kind, we do not believe. We feel too thankful for what has been done, to attempt to pluck a single leaf from the laurels which deservedly crown the brows of the author, translator, and commentator of this great and noble work. They may well afford, in consideration of the present gratitude of the profession, and the posthumous fame which awaits them, to disregard the criticisms of journalists; for if justice be not awarded them in the present generation, they will, at least, receive their full meed of praise at the hands of an impartial posterity.

We need not add, that there is no work in the English, or we believe, any other language, which presents so full and satisfactory an account of the present state of surgical art and science, as that of M. Velpeau, as translated by Townsend, and enlarged by Mott. The additions of the learned and accomplished translator, are extensive and valuable, and the illustrative plates are in the best style of the art. The publishers deserve great praise for their promptness in completing the publication of the work at so early a period, and we trust the profession will respond to such generous outlay and enterprise, by an extensive patronage of the work.

Art. XV.—*The Potato Plant: its Uses and Properties, together with the Cause of the present Malady, the Extension of that Disease to other Plants, the Question of Famine arising therefrom, and the best Means of averting that Calamity.* By Alfred Smee, V. R. S., etc. Illustrated with ten Lithographs. New-York: Wiley & Putnam; 12mo., pp. 157.

Life, in whatever structure it may be developed, whether animal or vegetable, is the peculiar study of the physician; its accidents, in whatever shape they may appear, constitute his special domain. If the phenomena of life and death, of health and disease, are not investigated by him, they will remain unexplored; if light does not break in upon the darkness which broods over animated being, then may we expect to grovel on, enveloped in doubt and cimmerean shadows.

The death of vegetables, doubtless, may be referred to causes of a similar nature to those which occasion the extinction of animal life. If man is influenced by temperature, light, electricity, barometric pressure, hygrometric state of atmosphere; by food, morbid poisons, pure air, &c., so are vegetables. Both are infested by parasites; both languish and die, in the absence of suitable nutriment; both perish on the application of poisonous agents. These circumstances must be our apology for calling the attention of our readers to the disease which has of late years infested the *solanum tuberosum.*

The potato disease appeared in Germany in the year 1830. Since then it has spread over various parts of the globe, and still continues to extend its ravages, threatening almost, in some places, the extinction of this valuable bulb. Dr. Smee believes he has traced the disease in question to the depredations of a small insect, which he calls *aphis vastator*, which he says is more than usually prevalent at the present time. A plant, as is well known, may perish from heat, cold, light, darkness, electricity, moisture, dryness, improper soils, &c. Dr. S. attempts to isolate all these causes by showing that, under all variations of their influence, the disease more or less appears; and with respect to fungi, to which the disease has been attributed, he says they do not appear till the plant is damaged.

Dr. S. devotes his first chapter to the physiology of the potato plant, and attempts to show that the integrity of the leaf is essential to the soundness and perfection of the root.

The potato is found to contain about 66 per cent. of water, and 30 of starch; its ultimate elements being, carb. 44, hydrogen 5, nitrogen-oxygen 45, ashes 5. The potato is valuable to man as an article of food from the starch and albumen which it contains, as these two principles can effectually nourish the human being. The one acts by combining with oxygen in his lungs, to give him warmth; the other nourishes his muscular system, and fits him for labor. It is the combination of these two principles which is so valuable, and we find that it cannot be produced at so cheap a rate from any other source. The following numbers express the nutritive equivalents of the articles which are placed opposite:—

Wheat Flour,	100	Indian Corn,	138
Barley,	138	Peas,	67
Oats,	117	Potatoes,	613
Rye,	111	do. dried at 212°	126
Rice,	177	Artichokes,	539
Buckwheat,	108	Turnips,	1338

Potatoes also contain a large quantity of phosphorus (2·5 per cent.), which acts as a stimulus to the nervous system. A very good bread may be made of this vegetable, by boiling and reducing to a very fine, tough paste by a rolling-pin, and then mixing with an equal weight of potato starch. The potato is highly efficacious as a remedy for the cure of scrofula. Its starch is used in the arts for various purposes; it is often sold for arrow root; may be converted into dextrine, or British gum, by merely heating it; into sugar by means of sulphuric acid; and into alcohol by distillation.

1. The *Aphis*, to which Dr. Smee attributes the destruction of the potato plant, is about one-tenth of an inch long when full grown, of a white, olive-green, brown, or reddish-brown color. It is generally met with on the under surface of the leaf, usually stationary, and not readily perceived, from being similar in color to that of the leaf itself. The insect is evidently the *Aphis rapæ* of Curtis, which infests the turnip. When it attacks the potato, each leaf is separately destroyed, and the mischief extends to the stalk and root. In many cases the progress of the disease is, at first, from above downwards. "The insect," says our author,

"passes over a field like a blast; it damages the root, lessens the vital power of the plant, and the insect then assumes the winged state and flies away." A microscope is required to examine the animal minutely.

We have not space to go into a full analysis of the work of Dr. Smee; we have, however, been much interested in it; for it contains the results of much careful and original research and observation, and throws much light on the cause of the vegetable disease, which is afflicting whole nations with famine. We cannot say that we are satisfied that the cause is fully made out, although the theory advanced is certainly as plausible and well supported as any we have met with. The work is beautifully illustrated with plates, showing the insect in its different forms and stages, as well as the fungi, and diseased appearance of the potato itself, etc. We commend it as well worthy the attention of the medical man, and the agriculturalist.

Art. XVI.—*A Treatise on the Diseases of the Eye.* By W. Lawrence, F. R. S., Surgeon Extraordinary to the Queen; Surgeon to St. Bartholomew's Hospital, and Lecturer on Surgery at that Hospital, etc. etc. A new edition. Edited, with numerous additions, and one hundred and seventy-six illustrations, by Isaac Hays, M. D., Surgeon to Wills Hospital, Physician to the Philadelphia Orphan Asylum, Member of the American Philosophical Society, Fellow of the College of Physicians and Surgeons of Philadelphia, etc. etc. Philadelphia: Lea & Blanchard, 1847; 8vo., pp. 859.

The early call for a new edition of the work by Mr. Lawrence is alone sufficient evidence of the value of the book. It is only within the last few years that the profession in this country have paid much attention to the pathology and therapeutics of the eye. Only a few years ago, and the whole armament that the physician made use of for the treatment of the various diseases of the eye consisted in a few simple astringent "drops," and a "dose of salts." With the more general diffusion of information by the press, the literature of the profession at home and abroad has reached the great mass of practitioners; and this, with the increased facilities offered in all our large cities for the study of pathology and clinical medicine, has, as a necessary consequence, directed the attention of the general practitioner to the study of what heretofore has been considered the specialities of the profession. Of these no one has received so much attention as that of ophthalmic medicine and surgery. Of the works best adapted to the wants of the general practitioner, or those who are devoted to this branch as a speciality, that of Mr. Lawrence, with the numerous additions of the American editor, is allowedly one of, if not the best. "Among the additions which have been made (by the American editor) may be noticed—the descriptions of several affections not treated of in the original; an account of the catoptric examination of the eye, and its employment as a means of diagnosis; one hundred and seventy-six illustrations, some of them from original drawings; and a very full index. Also, in the several chapters on the more important diseases, the results of the editor's experience in regard to their treatment, derived from more than a quarter of a century's devotion to the subject, during all of which period he has been attached to some public institution for the treatment of diseases of the eye." That these opportunities have been well improved the additions of the editor ably show, as those can testify who have used for a guide, as well as reference, the first edition: The work, however, needs no praise from our hands. We cannot, however, refrain from saying this much, that the library of no medical man can be complete without this work. From it, as from an abundant store-house, the practitioner can draw for supplies or information in times of doubt and need. To Dr. Hays are due our most grateful acknowledgments for the great service he has rendered the profession in this, as in a former edition. We prognosticate that this edition will receive as rapid a sale as the former. S. S. P.

Art. XVII.—*Annals of the Lyceum of Natural History, of New-York,* Nos. 8 and 9, Vol. IV. Stanford and Swords, New-York, 1847.

The present number is a continuation of Dr. Le Conte's "*Catalogue of the Grodeph Agous Coleopteræ*" of North America. We congratulate the cultivators of entomology on the completion of this able and elaborate monograph, alike honorable to the eminent and indefatigable author, and to the society under whose auspices it now appears. It will take rank at once as a classic in this branch of natural science and will be looked to as the first authority on an obscure and hitherto imperfectly-exposed department. We trust that the publication of the Annals, which has now been so creditably resumed, will be regularly continued, and that the members of the Lyceum will exert themselves to resuscitate and sustain an institution which has done so much for the natural history of our country. We would respectfully suggest to our readers, and especially those residing in the southern and western states, that donations of shells, fossils, minerals, and animals, whether stuffed, or preserved in spirits, will be most thankfully received by the Lyceum, and accredit given for the same, or if desired, other specimens will be returned in exchange. The corresponding members of the society, who are now numerous, and scattered over every part of the United States, might, with very little exertion, furnish not only descriptions of many new objects for publications, but also enrich the collection, by valuable specimens illustrating the various departments of natural science. We shall hereafter present a regular abstract of the proceedings of the Lyceum, drawn up under the supervision of the publishing committee.

PART III.

American Intelligence and Editorial.

The Medical Profession.—Before the present number of our Journal shall have reached our remote subscribers, the National Convention of Physicians, will have met in Philadelphia, to deliberate upon measures, calculated to elevate the profession, and promote the common interests of its members. We have the utmost confidence, that great good is to result from the deliberations of that assembly; composed, as it will be, of the combined talent and wisdom of the great body of the faculty throughout the United States; and we shall deem ourselves peculiarly fortunate, if circumstances will allow us to participate in its proceedings. We have, from time to time, called the attention of our readers to the importance of the subjects then and there to be discussed; and we have admitted various communications upon our pages bearing on the question of medical education, and medical reform, and the state of the profession in our midst; some of them, perhaps, too denunciatory in their tone, but yet put forth, with the sole intention of elevating and improving it, of placing it, in short, on a par with the other learned professions.

Our next number, which will be the first of a new series of the Journal, will contain the proceedings of the convention, and as full a report of what is said and done, as we can find room for on our pages. With the hope, however, that the present number may be issued previous to the meeting, we present the following communication, from one of the most distinguished professors and practitioners in our country; as it contains suggestions well worthy the attention of the profession, especially of those who are to take part in the deliberations of the convention.

Medical Convention.—My dear Doctor,—I regret very much that it will be out of my power to attend the Medical Convention which is to assemble at Philadelphia in May. It would have given me much pleasure to have met our medical brethren from all parts of this great country, assembled for the purpose of sustaining and elevating our noble profession to that rank and station to which its objects and purposes should entitle it. I rejoice that the profession is at length thoroughly aroused to the necessity of harmony and a closer union among themselves. All seem satisfied that something must be done, or the profession of medicine which should rank as inferior to no other will sink to a system of mere charlatanism. I am unwilling to admit that the profession as a body are less intelligent or worse physicians than they were twenty or thirty years since, or that those entering the profession are less qualified for the faithful discharge of its responsible duties; indeed we know the reverse of this to be the case. And yet it must be admitted that the profession has less of the confidence of the public than formerly, that it has sunk in general estimation, and that quackery and empiricism, both in and out of the profession, was never more rampant than at the present time. However surprising this may at first sight appear, a moment's reflection must satisfy an observer that the cause is obvious. Until within a few years there was at least an apparent line of demarcation between the educated physician and the empiric; true, the quack denounced the regular profession, and the profession denounced the quack; but it was very rare indeed for a man who had been regularly educated in the profession and obtained licence, however much quackery he might practise, to join the empiric in decrying the profession. But Hahnemann, an educated physician, came out and denounced the profession to which he belonged, and in which he had been educated, as knaves, as fools, and as murderers; his followers imitated his example, and whilst professing to be educated physicians (many of them having obtained licences,) and members of medical societies, they were endorsing, retailing, and repeating all the abuse heaped upon the profession by their master. Others, seeing the success of this course, adopted it in other departments, as in the case of the lectures of Dr. Fitch. Is it surprising that community should lose confidence in a profession so vilified and abused by its own members; and is it not certain that unless something can be done to arrest it, the profession will be irretrievably ruined. The crowded state of the profession, and the difficulty which a young man finds in getting into business, has no doubt contributed in producing this state of things, but we fear there are other causes of a more serious nature; causes which have drawn into the profession more than its due share of the worthless and unprincipled, and which, unless arrested, may make the profession in fact what its worst enemies have charged it with being. It is well known that a medical education when legitimately obtained, is the most expensive of all the professions; but it is nearly as well known that it can be obtained at a comparatively trifling expense. Many students are admitted to our highest institutions without pay. I have been informed of several cases of this kind, where the students were abundantly able to pay, but who under the plea of poverty got their lectures gratuitously. Some institutions advertise that they give credit for lectures, others give credit without advertising. No doubt many honest and worthy young men have availed themselves of this indulgence. No doubt, too, many a worthless and unprincipled person has been thus bribed to enter the profession, because they could get their lectures without pay, never expecting or intending to pay their notes when they gave them. If we look around us it will be found that these are the men who are the first to turn empirics, the first to abuse and vilify a profession to which they should never have been admitted, and who are incapable of appreciating its dignity and usefulness. If we hope for reform, one of the first steps should be to cease to hold out inducements for such members to enter the profession by giving them advantages over the worthy and honest. It is a common observation that we appreciate anything in proportion to what it cost, and it is seldom that a saying becomes a proverb without some foundation in truth. However this may be, it is a well-known fact that no class of citizens have done so much to encourage quackery and break down the medical profession as the clergy. There may be other reasons, but is not the principal one that as a body they are not in the habit of paying for medical services. No man has a higher respect than myself for their vocation, or for the man when he confines himself to and discharges faithfully the duties of that vocation, but for none have I a more sovereign contempt than the clergyman who neglects his vocation to be the pander to, and encourager of, quackery. It would be much better for both parties if they were required to pay like other citizens, and the medical attendant were able and willing to make an equivalent in some other form. The physician would be better appreciated and his services more highly valued. It was my intention to have offered some brief suggestions as to the action of the Convention, but I have been diverted by dwelling on the causes of the present state of the profession. Prof. Dickson has well said that the title of Doctor is no longer of any value, that any person can get it who has credit or money enough to have his name painted on a sign with the title added. The first great step then should be to draw the line of demarcation between those who are of the profession and those who are not. This will be found no easy matter; it will constitute the great struggle, and at first it may appear questionable which party will gain the ascendancy, but if the educated part of the profession, and those who are the friends of law and order, are true to themselves, they would in the end prevail. To accomplish this object, I would suggest the formation of a national association, to be composed of permanent members and delegates from district associations. The district associations to extend over the United States, and if possible to embrace every regularly-educated physician, who would sustain the dignity of the profession. Let a system of medical ethics be established by the national association, and signed by every member of the general and district associations. A list of all the members of each district association should be published each year in the district, and a copy forwarded to the central or national association. The general association to appoint a committee on ethics, which should be a committee of appeal. Each district association to have a committee on ethics, who should receive all complaints of a violation of the system of ethics, investigate the charges, and if deemed sufficiently important, call an extra meeting of the association to consider them, of which time and place the person complained of should have notice. A majority of votes given at such meeting to expel a member, but the person so expelled to have a right of appeal to the central committee. The names of all persons expelled to be forwarded to the central committee, who should cause to be published once in each year a list of the names of persons so expelled, two or more copies of which should be forwarded to each district association. No person expelled from one association should be admitted into another. The certificate of the secretary of one district association, that the holder is a member in good standing, to entitle him to admission into any other district association.

The subject of medical education will necessarily engage much of the attention of the convention. Much good may be accomplished, but the great danger to be apprehended is, that by attempting too much they will effect nothing. In several of the States the period of study required to obtain a licence to practise or to get a degree is fixed by law; the convention will have no power to alter these requirements, and it may be much doubted whether, if attempted, it would be enforced. All that the boards of censors can legitimately require of the canditate is, that he should have made reasonable proficiency for the time of study which the law requires. We much doubt whether under these circumstances it would be wise in the convention to ATTEMPT, at present, to extend the term of study. The colleges, however, may very properly unite in some additional requirements. No student, as we conceive, should be admitted to an examination for a degree, without a sufficient knowledge of the Greek and Latin languages to understand the meaning of the names and terms derived from those languages, and to translate the recipes found in the pharmacopœia and in works on practice. Every candidate should be required to have attended at least one course of instruction in practical anatomy, having himself dissected. In addition, we believe that every candidate should be required to give satisfactory evidence of having attended the clinical instruction of a hospital for at least six months, or as an equivalent have attended and assisted in the practice and under the instruction of a regular practitioner for at least one year. Much has been said on the subject of the modes of examination and of establishing boards for this purpose independent of the schools engaged in instruction. We must say that we have little confidence in any such expedient. True, this is a matter which each State legislature will regulate for itself. The schools would unquestionably continue to grant their degrees as an evidence of the qualification of their graduates; and with this evidence (whether it confer the power of a licence or not), few students would submit to the trouble and expense of another examination. No one can doubt that the professors who are in daily intercourse with the students, and who are engaged in teaching, are the most competent to examine and the best qualified to judge of their qualifications. Neither can it be doubted that the convenience of the student is consulted by an examination immediately after the close of the lecture term. If, then, the public can be protected against any undue partiality or indulgence, it accomplishes all that could be required. We believe this is fully accomplished by the mode of examination at Geneva and Buffalo. The student is examined in the presence of a board of curators, selected from among the ablest men in the profession, who unite in the recommendation for a degree.

There is another subject which appeals strongly to the convention for some action. I refer to the sale of quack medicine-nostrums or secret remedies. It probably would be in vain to attempt to obtain the passage of laws prohibiting their sale, but much could be accomplished by procuring the passage of a law in each State similar to that of Maine, requiring in all cases of the sale of any compound not found in the pharmacopœia and not prescribed by a regular physician, that it should have legibly printed or written on each parcel the composition of the preparation, in order that people might know what they were taking. The passage of such a law could probably he procured in every State, and would tend much to abate one of the greatest nuisances of the age. C. B. C.

Utica, *April* 17, 1847.

ENCOURAGEMENT OF QUACKERY BY MINISTERS OF THE GOSPEL.—[The following timely and judicious observations by Dr. McPheeters, one of the editors of the St. Louis Medical and Surgical Journal, set forth in so clear a light, the views of the whole profession relating to the encouragement of quackery by ministers of the gospel, that we are constrained to copy them entire; we could wish that they might reach the ears of every minister of the gospel, throughout the length and breadth of our country; that they might see and feel the responsibility they assume, when stepping aside from their holy vocation, they allow their names to appear as ushers to the various nostrums of the day. Nothing has pained us more than this prostitution of their influence. Theirs is the high and holy calling of administering to the wants of the diseased and sin-sick soul; this is the object of their mission proper, then why should they, or by virtue of what right do they, step aside from this their calling, and dictate what is advisable, for the thousand aches and pains that flesh is heir to. We hesitate not to say, that were ministers of the gospel to withhold their names and influence from the various quacks and nostrums that are heralded by day and night in our daily prints, one of the main sources from which they derive their strength and existence, would be cut off; and as a consequence, many valuable lives would be saved, that are now lost through ignorance, and which, we fear will be found at some future day, staining the skirts of clerical garments.—ED. *ad int.*]

The patronage and encouragement which quackery receives from ministers of the gospel, has often been made the subject of comment, and of severe animadversion, by medical writers; and its continuance is no less a matter of suprise than regret to those engaged in the cultivation of medical science, and in laudable endeavors to ameliorate the condition of suffering humanity, and to prolong the period of human life. That the conduct of ministers, in this respect, is loudly complained of by the profession, is to attributed to the facts —first, that from the nature of their calling, and the position which they occupy in society, they have it in their power, and actually "do us much harm," and science an irreparable injury, by encouraging quackery; second, as they are, generally speaking, men of education, and not unfrequently of science, we have a right to expect better things at their hands; and, third, as ministers and their families are usually attended gratuitously by the faculty, we think it is but reasonable to expect that they will refrain from doing that which is positively injurious to us as individuals, as well as to the profession we practice.—No body of men in our country occupy so enviable a position as do all classes of religious teachers; enjoying, as they do, a prescriptive respect, and being ranked, by common consent, as high as a lady, and above a man. They are looked up to as examples, and their counsel sought, and their advice taken, in secular as well as in ecclesiastical matters, while the sanctity of their calling gives enhanced value to their opinions on whatever subject they are expressed. That such is the case, we rejoice rather than complain, and would not have it otherwise if we could; for no one has a higher regard, or a more profound respect for the persons of ministers, or for the clerical office, than we have; nor has any one better reasons for entertaining such feelings towards them; and we cheerfully admit, that the immense influence which they wield, is, generally speaking, exerted in the most decidedly salutary manner. But we are utterly at a loss to know why it is, that their conduct, in reference to the most humane of all pursuits—one so near akin to their own calling—should prove so noted an exception;—why it is, that, so far as medicine is concerned, they are stumbling blocks in the way of science, and patrons of superstition, error, falsehood and humbug! In the remarks, therefore, which are to follow on this subject, while we shall speak with all that plainness which the importance of the subject demands, we are influenced by no other feelings than a sense of duty and a regard for truth and science.

That we are correct, then, in the position which we have assumed, to wit:—that the hydra-headed monster—quackery—is encouraged, and derives increased strength, from the patronage bestowed on it by ministers of the gospel, we appeal to facts, and to the experience of all men. Scarcely is there to be found a quack nostrum advertised in the newspapers, or whose virtues are proclaimed by pamphlet, or hand-bill—claiming to be a universal panacea—which does not come recommended by a certificate from some one, or more, reverend minister, priest, or religious teacher, testifying as to its virtues, and commending it to all who may be suffering with any disease to which flesh is heir. Or, if in any community there happens to be a practitioner of Homœopathy, Hydropathy, a "faith doctor," or a Mesmerizer, ten chances to one if the first person who employs him is not one of the reverend gentlemen above named, or, it may be, a Right Reverend himself. Such being the case—and it cannot be denied—we ask if we are not right in assuming that ministers are, *par excellence*, patrons of quackery? We do not believe, for a moment, that their object is to retard the progress of rational medicine; but such is the effect of their conduct, and the injury to science is as great, and they as culpable, as though they were actuated by *malice prepense*. Furthermore, we are willing to believe, and do believe that in many cases they are influenced by a desire to benefit others; but they cannot on this account, either, be excused on the score of "good intentions." Paul verily thought that he was doing God's service, when he stood by and consented to the death of Stephen; but was he any the less guilty on that account? No. Nor are they, who, from ignorance, or from any other cause, inflict an injury on science.

Ministers of the gospel, then do more than any other class of men to uphold quackery, and, consequently, to retard rational scientific medicine. Why is this? Is it that they are better qualified than other men to form correct opinions on medical subjects? We assert the contrary; and hold that they are incapable of arriving at a correct conclusion on any subject pertaining to our science. The very nature of their calling, and the course of their studies, preclude the possibility of such a thing They have no knowledge of Anatomy, or Physiology, without which it is idle to talk of correct notions on medical subjects; and it is worse than presumption in ministers to bring their opinions on such subjects in competition with those of men who have spent long years in their study and investigation; and such conduct is only calculated to diminish, and does diminish, the respect which is otherwise due to them, and to their sacred calling. But it may perhaps be said, in reply to this, "Surely, any one, whether he be a minister or not, can tell whether a particular remedy has done him good in a given disease?" Even this we are disposed to call in question, and are prepared to show that this cannot always be done. Now, how stands the case? A *soi-disant* Solomon, who is too lazy to gain an honest livelihood by the sweat of his brow, resolves on resorting to his wits, and as medical quackery seems to be the most certain and speedy way of arriving at fortune, he determines to go into it. He accordingly throws together a number of drugs, in the shape of a pill, or mixture, and claims for it extraordinary virtues in the cure of certain diseases. He next sets to work and writes letters, lauding his remedy to the skies, and recommending it in the strongest terms to all "the afflicted,"—and to these he appends such names as his fancy may dictate. But this is not sufficient:

in order to complete his designs, and give his nostrum free circulation, he must have the certificate of some one, or more, individuals of acknowledged standing and influence. Such persons are to be found in the clerical profession; and, perhaps, knowing the very great partiality which gentlemen of the cloth have for quackery in general, he waits on the nearest minister, presents him with a box, or bottle, of his nostrum, with the request that he will use it in his own person or family. In some slight indisposition, the remedy is employed, and recovery, as a matter of course, takes place (perhaps convalescence is retarded instead of hastened by its use); but recovery having followed the swallowing of the medicine, it is, of course, attributed to it. The minister is convinced! The cure took place under his own eye; or, it may be in his own person—how can he doubt? He, therefore, cheerfully complies with the wishes of the quack, and furnishes the desired certificate. Now, under such circumstances, how is it possible for him to say, with any degree of certainity, whether nature or the remedy effected the cure? And yet, he testifies that it was the latter, and the nostrum goes forth to the world with the sanction of his name, and with his solemn attestation of its superior virtues—to the encouragement of quackery, to the reproach of science, and, we will add, to the shame of the minister, and to the prostitution of his sacred office. This is no fancy sketch, but a true picture. And this is the kind of evidence on which clerical certificates are usually obtained. Do they reason so in reference to other matters? If so, how pitiable is the condition of those who look up to them for religious instruction, and take their *ipse dixit* for gospel truth.

But let us reverse matters, and put a case in point to our reverend friends (we mean no disrespect), and suppose that an able and ingenious enemy of the Christian religion were to come out with a work on some theological subject,presenting a fair exterior, and purporting to be on the side of virtue and religion, but on every page of which was distilled the subtle poison of infidelity—the more dangerous, because the more adroitly disguised: suppose, farther, that, in order to recommend his work to popular favor, the author were to procure certificates from physicians in all parts of the country, stating that they had examined the work, and could recommend it to all such as were anxious to have their minds enlightened on the important subject of religion,—it cannot be denied that such recommendation would have its influence, and cause the work to enter thousands of families which it would not otherwise reach. If what we have supposed were really to take place, would not every pulpit, from Maine to Mexico, thunder forth with anathemas against the medical profession? They would be charged—and justly charged—with warring against Christianity, and encouraging infidelity. It would be said—and truly said—that, upon a superficial examination of a subject with which they are not at all familiar, they had ventured an opinion to the immediate injury of true religion, but the remote consequences of which no one could foresee. The cases are analagous, and the application obvious.

We have already extended our remarks much further than we at first intended, but we cannot close without saying a few words as to the encouragement which ministers give to the practitioners of the various false systems of medicine—in other words, to quack doctors. The time would fail us if we were to attempt to enumerate all the erroneous systems, pointing out the absurdities of each: we will, therefore, content ourselves, for the present, with a single one—Homœopathy. And in the first place, we would ask the reverend gentlemen who countenance and employ homœopathic practitioners, if they understand homœopathy, and believe in its doctrines? The fact of their employing them presupposes a belief in, if not an understanding of, the system. Now, for the benefit of such, we propose to examine this system for a moment—the great fundamental principal of homœopathy is, that infinitesimal doses of medicine—that is to say, that a grain of medicine so minutely subdivided that numbers fail to express its utter nothingness, will act powerfully on the human system! Another of the principles of this *beautiful and philosophical* system is, that a medicine, when thus minutely subdivided—for example, a grain of sulphur dissolved in one of our northern lakes; if a small quantity of the solution be collected in a bottle, that its strength can be increased to an indefinite degree by simply shaking the bottle! Hahnemann gives minute directions on this subject, and gravely cautions his followers to be careful lest they give the bottle a shake or two too many, and thereby increase the strength of the medicine to such an extent as to endanger the life of their patient! Now, we wish to know of our reverend friends, patrons of homœopathy, if they do, or can, believe these monstrous absurdities? And, yet, if homœopathy be true, these things are so; and the fact of their encouraging the system implies that they believe them. But is it not absolutely insulting to the understanding of a rational man, to attempt to palm off such stuff on him for truth? He who can believe this, has no mind capable of appreciating correct reasoning, even if we had the patience or the disposition to argue with him.

In bringing our remarks to a close, we have only to say, that, while we fear there is but too much cause for their very general application, we cheerfully admit that there are many honorable exceptions. We know clergymen (and we take pleasure in stating it), who, both by their conduct and teaching discountenance all species of quackery: devout men—men of learning and science, from whose lips we have learned lessons of wisdom and practical piety. To such our remarks are not intended to apply. McP.

History of Typhoid Fever, as it prevailed near Geneva, N. Y., in the Fall and Winter of 1846–7. By Geo. C. Hay, M. D., of Geneva. (*In a letter to the Editor*).—Dr. Lee,—Dear Sir,—According to your request, I proceed to give you a brief account of the Typhoid fever, which recently prevailed in this region of country, and especially on the opposite shore of the Seneca lake. In that neighbourhood, fevers of a remitting type had prevailed quite extensively during the latter part of the last summer, and during nearly all the fall months, but not a single case, as I can ascertain, died of it at that time. In December, the first cases of the low form of fever showed themselves. All the cases which have occurred seem to be confined to a neighbourhood of from one to two miles square; and beyond the limits of this, as far as I can learn, no cases have appeared. The symptoms in the forming stage differed but little from an attack of ordinary fever, commencing with loss of appetite, sense of lassitude and disinclination to exercise of any kind, chilliness, pains in bones, etc. After twenty-four or forty-eight hours headache came on invariably in all the cases, and in many it was the first symptom, and continued very obstinate through the whole course of the disease. About the third day the patients were generally obliged to take to their beds, the headache increasing, attended with vertigo, dimness of vision, ringing in the ears, suffusion of the conjunctiva and deafness. The tongue was at first covered with a thick white fur which changed by the fourth or fifth day into a brown, and finally into a black during the latter stages of the disease. In a great majority of the cases diarrhœa was a prominent symptom from the commencement, so much so that even the use of the mildest febrifuge medicines was inadmissible; this was controlled with great difficulty by opiates, and in some cases astringents had to be resorted to. Accompanying this diarrhœa, we found considerable tenderness of the abdomen in nearly all the cases. The discharges from the bowels were generally very watery, of a dark color, very fetid, the urine scanty, sometimes entirely suppressed, and of a very red color. The skin was generally quite dry, although not very hot at any time, and in no case could I discover any of the "calor mordax" spoken of by writers, and which I have frequently felt in similar cases. As the disease progressed, in many cases delirium was a constant attendant through the whole course of the fever, and none were entirely free from it. In many cases the collapse came on very suddenly, and in others a gradual sinking came on, and steadily progressed until the patients died. The collapse seemed to bear no relation whatever to the severity of the first stage, as is generally the case, as sometimes in those who had been attacked but slightly, the collapse was sudden and fatal, while in those whose stage of excitement had been very severe the collapse came on very gradually, and progressed slowly, and *vice versâ.* As to the post-mortem appearances I can give you but little information, as owing to the prejudices existing among the people it was next to impossible to procure an examination. After I had left, however, one examination was made of a boy aged fourteen, who died very suddenly, and I understood from a physician who was present, that his bowels were a complete mass of mortification. As to the treatment, it was very various. All the patients, however, had in the commencement mercury, in some of its forms, and in two cases which have since recovered, it was carried to the extent of slight salivation. Some cases were bled generally, and some not, but it seemed to make but little difference in the continuance or violence of the disease. The local treatment consisted in cold applications, leeches, and blisters to the head and nape of the neck; cups and blisters to the chest, when the symptoms seemed to demand; hot fomentations, poultices, leeches, and blisters to the abdomen, etc. In some cases we ordered the patients to be washed over the whole body with a solution of nitro-muriatic acid made as strong as they could bear it; this was done twice in twenty-four hours, and seemed at least to give considerable temporary relief to the patients. The general treatment was at first calomel, hyd. cum cretâ, or pil. hyd., followed by the liquor ammoniæ acetatis, or spiritus ætheris nitrici, with the potassæ nitras or vinum ipecacuanhæ or antimonii; but in some cases, and indeed in many, their use was impossible, on account of the tendency to diarrhœa, as everything taken into the stomach ran off by the bowels in a short time. In all the cases stimulants and tonics had to be resorted to sooner or later, but generally with little benefit, although at first the patients seemed to rally under their influence, yet they seemed to have no permanent effect in many cases. Those used were the infusum serpentariæ, or columbæ, camphor, ammonia, etc., together with sulphate of quinine, port wine and brandy, with a nourishing diet of beef-tea, chicken-jelly, arrowroot, etc. I forgot to mention that the pulse was in most cases very frequent, from the commencement, ranging from 100 to 130 and 140 during the whole time. In some cases the pulse was quite full and hard in the commencement, but generally it was quite small and very easily compressed. I may say in conclusion that it seemed to matter little what course of treatment was pursued, the patients in a large majority of cases died, some during the first week, others running on four, six, eight, and ten weeks. In one family, five persons died, all between the ages of fourteen and thirty; indeed nearly all the cases have been young persons.

Geneva, February, 1847.

Case of Congenital Fracture of the Os Femur.—[The history of the following interesting case, from our much esteemed friend, Dr. Jacob H. Vanderveer, of Long Branch, N. J., communicated in a private letter, and not intended for publication, we deem of sufficient importance to lay before the readers of the Journal.—Ed. *ad. int.*]

Long Branch, Jan. 25th, 1847.

Dear Doctor,—I have a singular case at present; singular as far as I have any knowledge of. *Jan.* 18. Called in haste to see Mrs. W——. Had been in labor 12 hours. Examination per vag. Found the mouth of womb perfectly dilated; membranous sac ruptured, fœtus presenting the right foot and right iliac region. The left foot or thigh could not be felt. Womb contracting powerfully, and nearly constant. What little intermission I could find in the pains, I directed my efforts in placing the breech in direct unison with the superior strait; this was readily and easily accomplished. It descended slowly, and after a considerable time had elapsed I was enabled to feel the left thigh, which appeared to be bent back and sideways, in a bent-up position, entirely different from the ordinary breech presentation, the womb now acting powerfully. The right foot and leg was soon completely down, the other I had to leave in the position it was, for the womb pressed it so violently that I considered interference incompatible with safety; it slowly descended, however, and the body was delivered. The head was retained about 20 minutes—the pulsation of the cord had ceased. The child was in a state of asphyxia when delivered, but well-directed efforts soon revived it. I then observed the thigh (which was in the bent position) lay motionless, the child appearing to have no control over it. Upon examination, I found it to be either fractured, or a false joint. The true crepitus, one of the diagnostic marks of fracture, was absent. I could, however, feel distinctly a kind of crepitus, but entirely different from that generally felt in older persons. It imparted to the fingers a squeaking, instead of grating sensation. At last I resolved to set it with splints and bandages, as I would a fracture, let it be that or a false joint. The child was very large, weighing 14 lbs. It appears healthy, and manifests no symptoms of fever or pain.

[In a subsequent letter, dated April 3d, Dr. V. writes me that]—On the 27th of Jan. the inflammation and swelling had increased to a great extent, this I attributed in part to the bandages getting loose, which was very difficult to keep in place in a child so young, owing to its constant motion, and the flexor muscles always predominating, causing the thigh to be constantly flexed or semi-flexed on the abdomen. On the 28th retention of urine occurred, this was soon relieved by warm fomentations to the pubic region, with frictions of camphorated oil, etc. The inflammation was very severe for several days, which however soon subsided under the treatment pursued, which consisted of lead lotions, gentle laxatives, and strict attention to the bandages. The fracture has united much better than I anticipated; in fact you would not observe it, only by close inspection. The child is entirely recovered, and is in a thriving condition.

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SINGULAR CASE OF LACERATION OF THE BROAD LIGAMENTS. By GEO. T. ALLEN, M.D., Marine, Madison co., Ill.—Mrs. G. T. A., *ætatis* 27, while arranging a window-curtain, Oct. 17, 1843, fell astride a chair, the os coccygis and perineum coming in contact with its top. Mrs. A.'s height was five feet five inches; her shoulders were broad, and she was well-proportioned; consequently her weight could not have been less than one hundred and twenty-five pounds. The distance she fell was about four feet, and the concussion must have been very great.

The immediate effects of the fall were a slight gush of blood from the vagina, and an inclination to faint, which continued for several hours; after its subsidence, she seemed as well as usual, with the exception of pain in the soft parts that had been bruised; these were so much hurt as to prevent any other than a superficial examination, and to induce a full belief that the only injury was external. Mrs. A. sat up the greater part of the two days succeeding the accident, without any other unpleasant feeling than that from the outward injury. While at the tea-table, on the evening of the third day, violent palpitations of the heart commenced; she became faint, and, although immediately placed in the recumbent position, remained so, much of the time, for about six hours; her toes—to use her own words—seemed to die, and this semblance of death extended gradually in a wave two inches wide, from her toes to her feet, ankles, legs, knees, thighs, and body; and in same manner, from her fingers, and her body to her neck, brain, and thence off at the sinciput, occupying, perhaps, five minutes in its transit; immediately returning in the toes, and passing off as before; thus continuing for the space of six hours, succeeded by an interval of six hours, and alternating several consecutive days; each succeeding attack being milder than the preceding, until they ceased to manifest any periodicity, but returned, occasionally, during the first year. Mrs. A. felt at times as if her skin were a bag, filled almost to bursting with animalculæ. Another feeling which persisted through the early part of her illness (three or four months) was a sensation in the stomach similar to that we might expect a patient to suffer if that organ were pounded; this prevented her from lying on either side while it continued, and was succeeded by an aching and burning in the lumbar region, and severe pain in the os coccygis. The spine became stiff; she could bend it laterally and anteriorly, but not posteriorly, in the slightest degree: some firm substance seemed to cover its anterior surface, in the lumbar region: this feeling continued until relieved by death, and prevented her from resting supinely a moment. At times Mrs. A. suffered much from numbness in her left leg, prolapsus uteri, nervous irritability of her womb, uneasiness and pain in loins —which last symptom commenced two months after her fall, and ended with her life; an unpleasant burning, nervous sensation in the brain, slight derangement of the digestive powers, hepatic torpidity, with proportionate costiveness, acidity of stomach, flatulency, and disturbed sleep. A moderate leucorrhœal discharge was ever present, and prominent symptoms of tympanitis uteri troubled the patient, from October, 1844, until she became *enceinte* in Sept., 1845, and returned, after parturition, in June, 1846. Mrs. A. suffered much from pain in vagina; this organ was diminished in capacity, from swelling of its parietes, and this state, with enlargement of the adjacent parts, prevented the prolapsus uteri from being as prominent as it otherwise would have been. During the period of utero-gestation, Mrs. A. suffered less than before its commencement, and quite as little in parturition, as with either of the three children she had given birth to before the injury. Her fourth child weighed eight pounds and two ounces, and was perfectly formed. Mrs. A. *seemed* as well after confinement as before gestation, until August 22d, 1846, when a slight dysentery commenced; on the 23d she complained of a feeling of distention in her stomach, attributed by her to the presence in that viscus of bile, which secretion she continued to spit up, and declared that she suffered "*agony, dying agony*," from the extreme distention. These symptoms continued until a few minutes before her death, August 29th.

Post mortem.—The broad ligaments were ruptured, from the fundus to the cervix uteri; the womb lay upon the sacrum, and evidently rolled from side to side of the pelvis, as the patient turned in bed. The vessels in the lacerated part of the oroad ligaments resembled a black, vermicular mass. The neck of the bladder, with every part within the pelvis, was much tumefied, and there was considerable engorgement of all the pelvic blood-vessels. The lumbar vertebræ were ulcerated and abraded to the amount of nearly one-half their transverse diameter, and the remaining part had lost its firmness. The posterior part of the inter-vertebral ligaments seemed too thin, and the longitudinal measurement of the lumbar vertebræ, posteriorly, was much diminished by absorption—hence the anterior curvature, and the inability to bend the spine backwards. The periosteum covering the sides of the lumbar vertebræ was of a dark blue color, and so thin as to be easily removed with the finger-nail. *The spinal marrow was perfectly sound.* The irritability of, and feeling of distention in, the stomach, at the climax of the disease, were caused by an excited state of the semi-lunar ganglion and solar plexus.—*Missouri Med. and Surg. Jour.*

PRIZES OFFERED BY THE LEXINGTON MEDICAL SOCIETY.—*Prize for the best Thesis.*—The Lexington Medical Society resolved to offer a prize of fifty dollars, or a gold medal or piece of plate of that value, at the option of the successful competitor, for the best Thesis submitted for the Degree of Doctor of Medicine, in the Medical Department of Transylvania University, for the session of 1847–8. Those competing for this prize are at liberty to select the subject of the Thesis.

Annual prize.—The Society also resolved to offer an *annual* prize of fifty dollars, or a gold medal or piece of plate of that value, for the best original essay, on a subject to be selected by a committee. In accordance with the above resolutions, the committee propose, for 1847, a prize *for the best account of Continued Fever*, as it prevails in any of the States out of New England.

Remarks.—The Continued Fever of the Eastern States has been very carefully studied and very fully described. It is found to correspond exactly to the *typhoid fever* of France; and it is by that name that the disease is now generally called. The same disease is known to prevail extensively in some of the Middle, Western, and South-Western States; but throughout these regions it has not yet been very fully or thoroughly studied. This prize is offered as one means of remedying this defect.

Other things being equal, the prize will be awarded to that essay which contains an authentic and complete account and analysis of the largest number of cases of the disease; its leading phenomena during life, with the lesions in fatal cases; its average and extreme duration; the sex and age, and race, of its subjects; the season of its prevalence; and the prominent points of difference between it and periodical fever. It is very desirable that a careful examination should be made of the mucous membrane of the lower portion of the small intestines. Speculations about the remote and proximate causes of the disease will not add anything to the value of the essays that may be offered. The description of the disease must be sufficiently full and minute, to enable the committee to judge of the accuracy of the diagnosis.

The committee also propose, for 1848, a prize *for the best account of the several forms of Periodical or Malarious Fever in the United States.*

Remarks.—This subject has already attracted so large a share of attentien amongst physicians of the South and West, that some of them may be surprised at its being thus brought forward. But, extensively as malarious fever has been written about, there are many points of its natural history which need farther elucidation. Amongst these may be mentioned, particularly, the following:—the comparative liability of the sexes, of the black and white races, and of different periods of life, to the several forms of the disease; the influence of race upon its severity and danger; the relative proportions in different years and localities, of the three principal forms—intermittent, remittent and congestive; the most common type of the pure intermittent form; and the variations in the general character of the disease, in different seasons.

The essays must be sent, post-paid, to the Corresponding Secretary, Prof. J. M. Bush, on or before the first day of January, 1848, for the first, and 1849 for second prize.

Each essay must be accompanied with a sealed address of the author. That of the successful competitor only will be opened. The essays will be considered as the property of the Society, to be deposited in their archives, or published in their transactions, as they may deem best.

The committee may suggest, that a convenient opportunity for forwarding essays from a distance, will be presented by the annual assembling of the pupils of Transylvania University, in the fall.

Lithotomy.—Professor Dudley has recently performed the operation for stone in several instances, and with his usual success. He has now performed the operation on *one hundred and eighty-nine persons*, of whom one hundred and eighty-four have recovered. The last case from which we received particular information, recovered in less than a week. Twelve hours after the operation, the urine passed by the wound for the last time, and union by the first intention took place perfectly.

This remarkable success has not been attained by a *selection* of cases; on the contrary, we have the best authority for the declaration, that he has operated on nearly every case that has been presented. He performs the lateral operation, and always employs the gorget.—*Western Lancet.*

2.

Foreign Medical Intelligence.

ANATOMY AND PHYSIOLOGY.

Malformation of Fœtal Heart.—[Dr. F. H. Ramsbotham lately presented to the London Pathological Society the following interesting account of an infant's heart possessing only one auricle and one ventricle, with the specimen, which we copy from the London *Lancet.*]

It was situated in its natural position in the chest. The auricle was separated from the ventricle by tendinous valves. There was only one artery, the aorta, arising from the ventricle, which sent off a vessel in the situation of the ductus arteriosus. This artery divided into two branches, which supplied the lungs. The venæ cavæ and the two right pulmonary veins entered the auricle in their ordinary positions and directions, the pulmonary veins of the left side forming one common trunk before their termination in the auricle. The vena cava inferior, however, had been destroyed by opening the auricle, and the branch passing from the aorta, which divided into the pulmonary arteries, had unfortunately been cut away in removing the heart from the body.

The child was of full time, well developed, and lived ten days. The late Dr. Combe, who attended it during its short life, stated that cyanosis was perfect over the whole body, but that neither the respiration, temperature, nor muscular action, were materially affected. This preparation is mentioned by Dr. Farre, in his work on the "Malformations of the Human Heart;" and a detailed description of it, accompanied by two figures, is given in the ninety-fifth volume of the *Philosophical Transactions*, at page 228.

A new Ganglion.—Mr. Wharton Jones * has discovered the existence of a minute nervous ganglion, about 1-60th of an inch in diameter, connected by a short pedicle to the largest of the ciliary nerves, in the dog. It is situated at a point nearer to the entrance of the nerve into the eyeball than its origin from the lenticular ganglion. This new ganglion is made up of a small collection of nerve-corpuscles, from among which a few nervous fibrils proceed, and, being collected into a fasciculus, constitute the pedicle by which the body is joined to the ciliary nerve. The discovery affords most satisfactory proof that all which is requisite to constitute a ganglion is a mass of ganglionic corpuscles, and nerve-fibrils proceeding from it. He proposes to name this new body the ganglion cœcum ciliare. In the cat, the only other animal in which Mr. Jones has looked for the ganglion, he found, at the corresponding part of the same ciliary nerve, a small ganglionic mass; which, however, was not connected by a pedicle to the nerve, as in the dog, but closely applied to its surface.—*Ranking's Abstract.*

Vulvo-Vaginal Gland.—M. Huguier † has given a description of a gland situated at each side of the junction of the vulva to the vagina. It was discovered by Gaspard Bartholin, and was generally described by older anatomists; but of late its existence has been almost forgotten. According to M. Huguier, this gland is about the size and form of an apricot-kernel, and is provided with an excretory duct, about seven or eight lines in length, the external aperture of which is situated in the angle between the vulva and the border of the hymen. This gland is small until puberty, when it is developed with the other organs of generation; it becomes turgid during sexual excitement, and secretes a quantity of clear mucous-looking fluid, which it is said to ejaculate with some force. M. Huguier agrees with former anatomists in regarding this gland as closely analogous to Cowper's gland in the male subject, for it is situated at about the same part of the perineum as this latter is, and presents the same anatomical relations and connexions. It is an appendage to the vulvo-vaginal cavity, a part which is analogous to the urethra in the male; it receives the materials for its nutrition and its sensation from the same vascular and nervous sources as does Cowper's gland; it presents also many varieties in form, size and situation, and it may be absent on one or both sides, as is often the case with Cowper's gland.—*Ibid.*

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* Med. Gaz., Nov. 13, 1846.

† Gaz. Med., 4 Avril, 1846.

Development and Functions of Cells.—In his last report Mr. Paget * expresses strong doubts of the sufficiency of the ordinary theories of cell-development, having been led so to do by recent examinations of tumors and other morbid growths. The structure of such growths seems peculiarly adapted for testing a theory of cell-development: for, as he observes, "they are doubtless obedient to the same general laws of formation as the healthy structures are, and in the unequal and often rapid growth of their several parts, it could hardly happen but that, in many specimens, all the phases would be seen through which their structures pass towards their fully-developed state. But in very numerous examinations I have not found a single example in which a cell has appeared to be forming or formed around a pre-existing nucleus; or one in which fibres have appeared to be formed out of nucleated cells; or one in which nucleated cells have appeared to constitute a stage towards any form of higher development. On the contrary, I have found many instances of rapidly-growing structures, composed of large collections of fibres, without a nucleated cell among or near them; others with abundant nucleated cells, but scarcely any free nuclei or granules, and nothing like a cell incompletely developed round its nucleus; and again, others (and those of especially rapid growth) with no cells at all, but composed almost entirely of corpuscles, like nuclei or cytoblasts.

From these and other observations, I am disposed to think that the ordinary (and not the exceptional) mode of development of fibres is not through nucleated cells, but from a structureless or dimly-granular substance, which is first *marked*, and then broken up into fibres. There is good evidence that the cytoblasts, which are usually or always embedded in this substance, influence the development of the fibres, and though I cannot tell how they do so, yet it is certainly not by conversion of themselves into fibres; they shrivel and disappear as the fibres increase and become more perfectly formed. I think it will be found that, in morbid growths, the nucleated cell is always a terminal, not a transitional form; for in certain tumors in which the best-formed nucleated cells are formed, e. g., the epithelial tumors and some examples of medullary cancer, there are no higher forms found, not even imperfect fibro-cellular tissue, except in small quantity about the blood-vessels. Corpuscles having the characters of nuclei or cytoblasts (to adopt still the usual names) appear to be the really energetic bodies in the growth and determination of these morbid structures; they are found in some tumors so abundantly, and so unmixed with nucleated cells, that their power of multiplying and assimilating cannot be doubted; and it is in some of these tumors also that, apparently under the influence of the cytoblasts, the most perfect fibro-cellular tissue is ultimately formed. What I have seen also of the development of these cytoblasts leads me to agree with that view of the development of nuclei generally, according to which they are described as formed, not on a pre-existent nucleolus, but out of granules collected in a dark or dim mass, of the proper size and shape, which then clears up by the formation of a membranous wall and transparent fluid contents, with, in some cases, one or more persistent granules holding the position of nuclei.

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* Brit. and For. Med. Rev., July, 1846.

Several other contributions have been made on the subject of the physiology of cells; among which is a long and interesting paper by Dr. Williams;* one by Reichert;† an essay, by Dr. H. Meckel,‡ on the glandular apparatus in some of the lower animals; a short paper, by H. C. Jones,§ on the structure of the salivary glands; and some general remarks on cells, by M. Courtz,‖ in a work on the development of the human ovum. Mr. Jones, in his paper, considers (as Henle did) that the secreting vesicles of the salivary glands exist originally as closed and independent cells, and that they subsequently coalesce with each other, or open at once into a terminal duct of the gland.—*Ibid.*

SURGERY.

Treatment of Aneurism by Compression.—By W. R. Wilde, Esq., Dublin. [An elaborate history of this practice will be found in the "Dublin Quarterly Journal for August, 1846," by Mr. Wilde, the talented editor of that work; in which we find a table of twenty-nine cases—the first by Mr. Todd, in 1820, and the last in the present year, by Mr. O'Ferrall, of Dublin. A tabular arrangement of these cases will be found at p. 263 of this vol. of the Journal. Mr. Wilde ends his paper with the following conclusions:]

1. That numerous attempts have been made, during the present century, to cure external aneurisms, popliteal in particular, by means of pressure upon the artery between the sac and the centre of the circulation; and that various instruments have been contrived to effect this purpose.
2. That by such means it is more than probable that occasional cures were made.
3. That popliteal aneurism seems the most favorable for the application of pressure.
4. That to Mr. Todd is due the merit of having first fairly tried, and successfully applied the pressure treatment of popliteal aneurism in these kingdoms.
5. That no permanent position was established for the treatment of aneurism by compression, until the cases treated by Mr. Hutton, Mr. Cusack, and Dr. Bellingham, were brought before the profession at the Surgical Society of Ireland, in 1843.
6. That up to this period, the instruments made to effect the compression were defective, inasmuch as they applied the pressure on but one point.
7. That the improvement introduced by Dr. Harrison's patient, Hoey, of applying a number of clamps along the course of the artery, has done much to remedy this defect, and has afforded surgeons a very valuable hint on the subject.
8. That from the history of cases recorded by Professor Porter and Mr. Cusack, it would appear that it is not necessary, completely, to arrest the pulsation in the tumor, by pressure on the artery, in order to produce a cure.
9. That this cure is effected by means of a coagulum formed in the sac, either by lessening the current of blood flowing through the artery, or by some peculiar power of coagulation imparted to the blood, aided by the contraction of the sac.
10. That in order to effect this coagulation, galvanism has been employed, and appears to hold out hopes of success.
11. That from dissection we learn, that it is not necessary to obliterate the artery between the point of pressure and the sac, in order to produce this coagulum, and effect a cure.

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* Guy's Hosp. Rep., vol. iv, New Series, 1846.

† Müller's Archiv, Heft ii. and iii., 1846.

‡ Lib. cit., Heft i., 1846.

§ London Med. Gaz., July 10, 1846.

‖ Review in Gaz. Med. de Paris, 18 Avril, 1846.

12. That pressure has been tried, and produced coagulation, even when applied to the distal side of the sac.

Dublin Quarterly Jour. of Med. Science, Aug., 1846, *p.* 131.

[With some of these conclusions Dr. Bellingham is not at all satisfied, especially the seventh, in which it is said that the practice of using clamps, in order to press upon different portions of the artery was introduced by Dr. Harrison's patient, Hoey; whereas Dr. Bellingham claims this important improvement for himself, not being aware at first that a similar method was described by Begin (Dict. de Med. et de Chirurg. Prat.) as having been employed both by Dupuytren, and M. Gama, of Strasbourg. Dr. Bellingham enters into a history of the treatment of aneurism, in a series of papers in the Dublin Medical Press, beginning with the number for Aug. 19, 1846, and in the Medical Press for Nov. 4, describes the different instruments which have been used. As this description may be useful, we subjoin it:]

The Tourniquet Truss.—The compressing instrument, which, under the name of the "tourniquet truss," was employed with success by Mr. Todd and Mr. M'Coy, has been already noticed. It consists of a band nearly similar to that of a hernia truss, except that the spring is stronger, and the pad firmer. The pad is provided with an under plate, connected with the upper by a hinge, and a tourniquet screw passing through it, has the effect, when turned off, of compressing the artery with sufficient force to check its pulsation. This instrument is stated to have been used in one or two other cases where compression succeeded; but its principal use appears to have been to compress the artery at the groin, in cases of amputation near the hip-joint; it is figured by Blasius, as "the inguinal tourniquet of Lafaye;" under this name it is described in some other works, and recommended as well adapted for the purpose.

Mr. L'Estrange's Tourniquet.—In the year 1826, a very ingenious instrument for compressing the artery in the groin, in cases of amputation at the hip-joint, or very high up the limb, where the ordinary tourniquet cannot be applied, was invented by Mr. L'Estrange, of this city. This instrument, which is made of steel, forms three sides of a square, and in each side are sliding joints to allow of their being lengthened or shortened so as to fit any patient. Each extremity is provided with a pad; one of these is laid over the artery in the groin, and by turning a screw connected with it, the vessel is compressed, while counter-pressure is made upon the sacrum by the larger pad at its opposite extremity.

Mr. L'Estrange's tourniquet differs from other compressing instruments adapted to this part of the limb, in the long arm of his instrument (which is in front) passing across the pubes, and pressing upon the artery on the opposite side to that which it encircles; so that, in amputation at the hip-joint, or of the thigh near the trochanters, the artery is compressed without the apparatus being in the way of the operator. This instrument has been employed at some of the Dublin hospitals in amputation, in place of the ordinary tourniquet; it has been also successfully used where secondary hemorrhage followed the operation for popliteal aneurism. Within the last few years, it has been employed in this country for making pressure upon the artery in the groin in some of the cases of aneurism already recorded, in which the treatment by compression is adopted.

Sir P. Crampton's Presse-Artère.—In the year 1830, an instrument for the *immediate* compression of the artery in the groin, was invented by Sir Philip Crampton, which, slightly modified, was employed in several of the earliest cases where mediate compression was successfully used in Dublin. This instrument consists of a hollow splint, well padded, and of sufficient size to receive the nates and upper part of the thigh of the side on which we intend to make pressure, and sufficiently long to reach from the crest of the ilium behind to the middle of the thigh. From the upper and outer edge of the splint, a steel trap passes across to meet another from the lower and inner side; at the point where they meet, the lower is fitted with a slide, and the upper with a hinge; in addition, there is a sliding box, tourniqnet screw and pad, with a sliding-bar to prevent lateral motion. To the upper and inner edge of the splint a spring is attached, which embraces the opposite side of the pelvis, and is continued into a strap which passes over the abdomen, and secures it above, while below it is secured by a soft strap which passes round the thigh. This instrument is adapted to compress the artery as it crosses the horizontal ramus of the pubis. A figure of it has been given by Dr. Fleming, in the Dublin Medical Press, for May 3d, 1843; but it is now seldom used.

The Clamp.—The compressing instrument known at the surgical instrument makers' here, under the name of the clamp, consists of an arc of steel, having at one extremity an oblong padded splint, and at the other, a nut containing a tourniquet screw connected with a smaller pad: the latter, although acted on by the screw, is so connected with it as to be readily turned in any direction. In using this instrument, the pad is laid on the artery, and the vessel is compressed by using the screw, counter-pressure being made by the padded splint at the opposite side of the limb. It is constructed of different sizes, so as to be adapted to compress the femoral artery as it crosses the horizontal ramus of the pubis, or the brachial artery low down in the arm.

The clamp was first used as a compressing instrument in this city by a carpenter, the subject of popliteal aneurism, treated by Mr. Harrison. The pain occasioned by the apparatus originally in use, induced the patient to try if the vessel could be compressed by an instrument called the clamp, or cramp, which is used in his business for temporarily binding portions of wood-work until the glue intended to connect them becomes dry. It answered so well, and gave so little pain, that he continued to employ it in preference to any other, until a cure was effected. The workmanship of the original was, as may be supposed, rude, but it served as the model for those constructed since in this country.

At the London instrument-makers', the clamp has been known under the name of Oke's tourniquet, since the latter end of the year 1843. Mr. Storks, of London, informs me, that the model of this tourniquet (which was intended for the suppression of hemorrhage), was forwarded to Messrs. Weiss by Mr. Oke, of Southampton, in September of that year, and that instruments upon this principle were manufactured soon afterwards.

The clamp, would, however, appear to be a much older invention; if we turn to the description of the instrument employed in the second successful case of popliteal aneurism treated by compression upon record, we shall find that it applies to the clamp now used. The case (which has been already noticed) occurred in the practice of Dubois, and was communicated to the Faculté de Medecine in March, 1810. The instrument (which is stated to have been constructed expressly for the purpose) "consisted of a semicircle of steel, both extremities of which terminated in pads; one was provided with a screw, the other not; the pad with which the screw was connected was laid upon the femoral artery, and, by turning it, the vessel was compressed, the counter-pressure being made by the other pad placed upon the opposite side of the limb." There can be no doubt that Dubois' instrument served as the model for that which bears the name of "Dupuytren's compressor." In Blasius' work, published at Berlin, in 1833, a compressing instrument is figured which very closely resembles the clamp; it is termed a nerve-compressor, and is referred to Moore as the inventor.

The clamp is a cheap and effective instrument, and not the least advantages which it possesses are that its construction is so simple that it is not liable to be put out of order; the principle upon which it acts is so plain as to be readily understood by the patient; and its application can be borne for a longer time, and with less inconvenience, than most other instruments. A figure of the clamp will be found in Mr. Teale's Retrospective Address on Surgery, for the years 1844–45, delivered at the meeting of the Provincial Association, held at Sheffield in July, 1845, and published in the second volume (new series) of their Transactions. (See Retrospect, Part xiii., Art. 119.)

Messrs. Read's Aneurism Compress.—This instrument, constructed by Messrs. Read, surgical-instrument makers, of Parliament-street, in this city, consists of a padded band which encircles the pelvis, and buckles in front, of a semicircle of steel which comes off from the back of this band (into which it is so fitted that it can be adapted to either side), and terminates in a ball and ring, with a screw and pad attached. The ball and ring, through the former of which the screw connected with the pad passes, permits of the latter being pointed in any direction the surgeon may wish; when the pad has been brought immediately over the artery, it is fixed by turning a thumb-screw, which causes the ring to hold firmly the ball within it. Where the ball and ring join the semicircle of steel, there is what is termed "a quadrant," which permits of their being moved either upwards or downwards, so as to vary somewhat the point of pressure, and by turning another screw they are then secured.

This instrument, which is intended for the compression of the artery as it crosses the horizontal ramus of the pubis, or of the femoral artery a little lower down, was used in several of the cases of popliteal aneurism contained in the list already given; it is a considerable improvement upon other instruments, and its application can in general be borne for a longer period than most others, as it compresses the artery in the groin; a clamp may at the same time be applied upon the vessel in the middle or lower third of the thigh. The ball and ring of this instrument have been substituted with advantage by Messrs. Read for the fixed screw in the ordinary clamp.

Signorini's Tourniquet.—The instrument known under the name of the tourniquet or compressor of Signorini of Padua, scarcely differs from Dupuytren's compressor already described. It has the shape of a horse-shoe, and consists of two blades connected together in the centre by means of a screw and rack. Each extremity is provided with a pad; by turning the screw those are brought into close approximation, and the compression effected. This instrument was employed in several of the cases of aneurism treated by compression, reported from the London hospitals, and contained in the list which I have given. A figure of it will be found in Mr. Cox's memoir upon amputation at the hip-joint; it was used to compress the artery in the groin in his operation, and is reported to have answered perfectly.

Charriere's Compressor.—This is an improved instrument upon the principle of Dupuytren's compressor, manufactured by Charriere of Paris. It consists of a semicircle of steel, made in two segments, which slide upon one another, which permits of the size of the arc being increased or diminished, so that the instrument can be adapted to any part of the limb. At each extremity is a joint "en charniere," which supports a pad, that which serves to compress the artery is moveable and is connected with a screw, by turning which pressure is made; a larger pad at the opposite extremity serves to make counter-pressure. This instrument (which has not been used in this country) is figured in the sixth volume of Bourgery's Medecine Operatoire.

The Ring Tourniquet.—This instrument consists of a flexible ring of steel about an inch in width, and of a greater diameter than the limb to which it is to be applied. At one point in its circumference is a screw connected to a pad, exactly opposite is a fixed pad, and by turning a screw these are approximated. When applied, this instrument makes pressure only upon two points—viz., upon the artery, and upon the opposite surface of the limb.

The ring tourniquet is described in few treatises on Surgery, and the name of the inventor has not been mentioned. It was used by the late Mr. Tyrrel in some cases of wound of the brachial artery at the end of the arm, which are reported in the first number of St Thomas' Hospital Reports: the instrument was applied to the artery above the seat of the injury, with a tight bandage from the fingers to the elbow, and in all the cases a cure was effected without the formation of an aneurism. In one instance he had an opportunity of examining the condition of the parts after the patient's death from another disease; he found that the wound in the artery had completely united, and that the calibre of the vessel was perfect. In the last edition of Cooper's

Surgical Dictionary this instrument is also described and Mr. Cooper mentions it as being adapted to cases of compound fracture complicated with hemorrhage, and to wounds of arteries. The ring tourniquet was used in some of the cases of aneurism treated by compression contained in the list already given; it is a light, portable, and convenient instrument, and though inferior to the clamp, might be occasionally substituted for it.

The Weight.—In a case of femoral aneurism already recorded, a method of applying compression was adopted which appears never to have been previously tried, and which I found to check or to diminish the current of blood in the artery leading to the aneurismal sac with but little inconvenience to the patient. This consisted in a metal weight of from seven to nine pounds laid upon a compress or pad, placed upon the artery as it crosses the horizontal ramus of the pubis, the patient lying upon his back with the thigh slightly flexed upon the pelvis. It was resorted to, in the first instance, in consequence of the apparatus in use having gone out of order at a time when it was impossible to have it repaired. A four pound weight laid upon a tourniquet pad, was first tried, but not being found sufficient, a seven pound weight was substituted for it, which answered perfectly; in a second case it required a weight equal to eight or nine pounds to effect the same object; in both the patients preferred it to any instrument. It would therefore appear that the compressing force necessary to check the pulsation of the femoral artery in the groin is about equal to a weight of from seven to nine pounds.

The weight has the advantage over compressing instruments in its checking or diminishing the pulsation in the aneurism with little distress to the patient, as no counter pressure is required, which is often as irksome as the direct pressure. It is not, however, applicable to every artery, the vessel must rest upon a solid substance, against which it can be pressed, as in the lower extremity, where the artery crosses the horizontal ramus of the pubis. The disadvantages which attend this method of applying pressure, are, that the weight is very easily displaced on any change in the patient's position, and its use cannot be continued when he falls asleep, as it requires the assistance of his hands to maintain it in its place. These disadvantages were endeavoured to be remedied by an apparatus invented by Mr. Carte, of this city, which was imperfectly tried in a case of popliteal aneurism under my care some months since, and which I shall now describe.

Mr. Carte's Apparatus for applying the Weight.—This apparatus consists of three parts—viz., a belt of a peculiar shape; a receiver in connection with it; and metal weights of different sizes. The belt which is made of leather lined with chamois, is shaped so as to fit accurately the hip, buttock, and upper part of the thigh; it almost surrounds the limb, and is secured on the outside by straps and buckles, one strap passing round the pelvis; immediately over the artery a circular hole is left in the belt, about an inch or a little more in diameter. The receiver (which is termed a "hopper," from its resemblance to the part in some machine) is made of very strong leather, has the shape of an inverted cone, the small end being attached to the edge of the circular hole in the belt. The weights which are of lead, and of different sizes, have a conical shape, so as to fit easily into the receiver, and are so shaped that the smaller end will pass through the opening in the belt, and rest upon a compress or pad laid upon the artery underneath.

The advantages of this apparatus are, that it is readily applied, and not easily displaced; as the thigh-belt extends over a large surface, and there is no counter-pressure, the patient will suffer little inconvenience, and the amount of pressure can be graduated by having at hand weights of different sizes; its use may be combined with a clamp upon the artery lower down the limb.

Messrs. Read's Apparatus for applying the Weight.—This apparatus consists of a cradle composed of two light flat metal hoops or rings, joined together by a connecting flat piece of iron, into which the upper part of the thigh fits, and the hoops are so constructed that their size can be increased or diminished, as occasion may require. A ball and ring, similar to that of the "aneurism compress," comes off from the upper hoop, but instead of a screw, a smooth cylindrical iron rod moves in the ball, and is connected with a pad below. The apparatus is intended for the compression of the artery in the groin, which is effected by passing flat leaden weights, having a hole in the centre, down the rod connected with the pad, and their number may be increased until the necessary degree of pressure is made.

Compression by Means of Two Instruments applied upon different Parts of the Limb, and alternately Relaxed.—Notwithstanding the improvements which have taken place in the construction of compressing instruments, and the ingenuity which has been displayed in the invention of new and more perfect forms, it is almost impossible in the majority of cases to adapt any apparatus to a limb, which the patient will bear for many hours consecutively, if the pressure is sufficiently strong to diminish materially the current through the main artery. This object can, however, be attained in another way—viz., by applying two compressing instruments upon separate parts of the limb, one of which is tightened, the other not; and by thus alternating the pressure, we produce the same effect as if constant compression was maintained at one point, and the patient is enabled to keep it up for a much longer period than is possible under other circumstances.

Mr. Millikin's Double-padded Compressor.—An ingeniously-contrived apparatus, intended to supply the advantages to be derived from the use of two separate instruments, was constructed some months since by Mr. Millikin, surgical-instrument maker, of Grafton-street, in this city. It had two separate pads at some distance from one another, each acted on by screws, by which separate portions of the artery could be alternately compressed. This instrument was tried in one of the cases of popliteal aneurism contained in the list which I have given, but I was informed that it did not answer so well as two separate instruments placed upon different parts of the limb.

Braithwaite's Retrospect, from Dublin Med. Press.

Polypus of the Rectum. By Mr. Syme.—Sir A. Cooper states, in his Surgical Lectures, that "in the course of his life," he met with only ten cases of polypus of the rectum.

Some time ago, I met with five cases in the course of a single fortnight—two of them in adults, and three in children—and I have seen a sufficient number of other instances of the disease, to satisfy me that it is not by any means so rare as has generally been supposed. It presents itself in three different forms, of which one usually occurs in childhood, and does not appear much beyond puberty. A gentleman, now established in practice, not far from Edinburgh, when attending my lectures—then I suppose about eighteen or nineteen years of age—applied to me for the removal of a polypus, such as is met with in early life; with this exception, I never met with it beyond the ninth or tenth year. It is extremely soft, vascular, of a florid red color, and assumes the form either of a worm from two to four inches in length, or of a strawberry with a connecting footstalk two or three inches long. This tumor seldom protrudes except when the bowels are evacuated, and then admits of ready replacement, although not without occasional hemorrhage, which may be of considerable amount. The vascularity of this growth, and its attachment above the sphincter, made me averse from removing it by excision; and Sir A. Cooper has mentioned the alarm that was on one occasion excited in his practice by doing so. I have always employed the ligature; and though the soft structure readily gives way when the thread is drawn, bleeding has never occurred in a single instance, or any other symptom in the least degree disagreeable resulting from this mode of removal; I am therefore induced to regard it as the best that can be employed.

The disease appears in adults in two very distinct forms. In one of these, the growth is soft, vascular, prone to bleed, lobulated or shreddy, and malignant-looking, so as on the whole to resemble very much the cauliflower excrescence of the os uteri, but possesses a peduncle or footstalk of firm texture, capable of sound cicatrization after being divided. The profuse, frequent, and protracted bleeding which proceeds from this sort of growth, renders its removal an object of great consequence; and this may be effected very easily, and with perfect safety, by transfixing the radical cord of connexion with a double ligature, tying the threads so as to include a half of it in each, and then cutting it across a little below the constricted part. In a patient of Mr. Craig of Ratho, (who detected the disease from the great hemorrhage it occasioned,) I could not accomplish protrusion of the tumor, but guided a ligature on my finger, and tied it on the neck within the rectum. It is more satisfactory to force or draw the swelling beyond the sphincter, so that the sound and morbid parts may be distinguished with certainty, and this can usually be done with great facility, although the growth has attained a large size. In a hospital case recommended by Mr. Anderson of Castle-Douglass, I brought into view and removed a tumor not less than an orange, which had a most malignant aspect, and had nearly exhausted the patient by hemorrhage.

In the other form which polypus of the rectum assumes in adults, the tumor is of a firmer consistence, smoother surface, and more regularly spherical or oval form, so as to resemble the growth which in general constitutes *polypus uteri*. The symptoms resulting from this simple swelling are rather annoying than seriously alarming; and the patient, therefore, is apt to delay requiring assistance for a long while. In the case of an old lady, whom I saw with Mr. Hilson of Jedhurgh, the tumor was about the size of a cherry, with a long stalk, and we were assured had protruded every time the bowels moved for twenty years. In another case, a gentleman whom I saw with Dr. Johnston of Cumnock, the tumor was nearly as large as an egg, had a cuticular covering, and appeared to have existed for a period equally long. I have always removed these growths in the way that has been already described, and never met with the slightest consequence of a disagreeable kind.—*Lond. and Ed. Month. Jour. of Med. Science.*

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Application of Ice in the Treatment of Injuries.—The application of ice to a great proportion of severe wounds, is the established practice of several of the most respected French surgeons.

In the Hôpital St. Louis, burns are treated in this way, and its application in extensive burns appears to us to be that in which its employment is most strongly opposed to our treatment of the same injuries.

"However extensive the surface or the depth of a burn, it is immediately covered with bladders half full of pounded ice, which are fixed by different contrivances, according to the injured part, and this treatment is continued till the separation of the eschars. If the burn is very extensive, the patient is placed in a sheet, and, held by two men, is plunged into a cold bath."—*Annales de Thérapeutique*, May, 1846. It is said that the patient experiences immense relief from this treatment, and that he is comparatively free from pain as long as the body can bear the extreme cold. The bath is repeated frequently. It is believed by the advocates of this treatment that the extent of sloughing of the surface is thus greatly diminished; in other words, that the extent of destruction of the injured parts does not depend on the severity of the original burn, but on the intensity of the reaction, which occurs afterwards, and the beneficial operation of the cold is attributed to its preventing, or in a great measure, subduing this reaction.

However rational the theory, we believe that in practice, this treatment of very extensive burns will invariably be found inapplicable. The surface of the body in these cases is in the first place cold, and the patient collapsed and pulseless, and we do not think the most strenuous advocate of the ice and cold water system would immerse a patient in this state in a cold bath. On the contrary, stimulants must be administered, and the small quantity of caloric remaining in the body is to be preserved by the external application of cotton wadding and other non-conducting substances. It must be remembered, too, that the shock from an extensive burn is not recovered from so rapidly as that occasioned by most other injuries; and frequently soon after the full establishment of reaction, the separation of the sloughs has commenced, the extent of which we believe to depend entirely on the severity of the original burn, and not on the treatment employed. The application of ice in smaller burns, we should think much more worthy of trial; indeed, we are aware that great relief is sometimes obtained from its use, and as relief from pain in such cases is one of the best indices of treatment, the feelings of the patient may very properly guide us in its employment.

In the Val de Grâce, M. Baudens uses ice extensively in cases of wounds, contusions, and compound fractures, and apparently with much success; but this surgeon, not content with the degree of cold produced by the ice, reduces the temperature to a much lower degree (15° below zero, C.) by mixing it with common salt. It is allowed, however, that this extreme degree of cold frequently produces considerable pain to the patient, and a feeling of tightness and congestion of the part; and we should naturally expect such an extreme degree of temperature to prove rather a source of irritation to the part, than to act in the beneficial way in which it is represented. By using cold water, and renewing its application very frequently, we probably obtain as low a temperature as it is advisable to apply on most occasions.

We feel assured that the indiscriminate and continued application of ice to wounds and injuries is frequently productive of mischief. We have witnessed fatal erysipelas on several occasions supervene during its application; and in a large hospital in the north of Germany, where this treatment was indiscriminately applied in every case of wound, contusion, and fracture, simple or compound,—fatal cases of phlebitis and erysipelas occurred with greater frequency than we have ever seen elsewhere.—*Ibid.*

Lithotrity.—Statistics by M. Civiale.—From the year 1836 to 1845, M. Civiale has applied his method in two hundred and sixty-six cases, with success in two hundred and fifty-nine patients, a few of which obtained only partial relief. In seventy-nine instances M. Civiale considered that the operation of crushing presented no chance of success, and refused to operate. Lithotomy was performed on twenty-eight, and seventeen recovered.

The statistics laid before the academy, at various periods, show that five hundred and eighty-two patients have been operated upon by the author; and the tables point out distinctly this remarkable fact, that three-fourths of calculous patients who present themselves now-a-days, for treatment, are operated upon by the method of crushing.—*London Med. Times.*

MEDICAL PATHOLOGY AND PRACTICAL MEDICINE.

On the Diseases resulting from the immoderate Use of Tobacco. By THOMAS LAYCOCK.—The consequences of smoking tobacco are manifested in the buccal and pharyngeal mucous membrane, and their diverticula; on the stomach, the lungs, and the heart, and on the brain and nervous system. With regard to these consequences, it may be generally stated here that they vary according to the quantity of tobacco smoked, and according to the pathological conditions and peculiarities of the individual himself. Some persons will smoke a very large quantity before certain symptoms arise, while others experience these with a very small quantity. The amount consumed by habitual smokers varies from half an ounce to twelve ounces per week. The usual quantity is from two to three ounces. Inveterate cigar smokers will consume from four to five dozen per week of the lighter kind of cigars, as Manillas, Bengal cheroots, etc.

The first and simplest morbid result of excessive smoking is an inflammatory condition of the mucous membrane of the lip and tongue, and this sometimes ends in a separation of the epithelium. Then the tonsils and pharynx suffer, the mucous membrane becoming dry and congested. If the throat be examined it will be observed to be slightly swollen, with congested veins meandering over the surface, and here and there a streak of mucus. The inflammatory action also extends upwards into the posterior nares, and the smoker feels from time to time a discharge of mucus from the upper part of the pharynx, in consequence of the secretion from the mucous membrane of the nares collecting within them. Sometimes the anterior nares suffer, but in this case the irritation is not marked by increased secretion so much as by tickling and itching within them. The irritation will also pass to the conjunctiva (and I am inclined to think from the nares, and not by the direct application of smoke to the eye), and the results are, heat, slight redness, lachrymation, and a peculiar spasmodic action of the orbicularis muscle of the eye, experienced, together with intolerance of light, on awaking from sleep in the morning.

I think the frontal sinuses do not escape, for I find that one of the symptoms very constantly experienced after excessive smoking is a heavy dull ache precisely in the region of these sinuses. But, descending along the alimentary canal, we come to the stomach, and here we find the results to be, in extreme cases, the symptoms of gastritis. There is pain and tenderness on pressure of the epigastrium, anorexia, nausea on taking food, and constant sensation of sickliness and desire to expectorate.

The action of the heart and lungs is impaired by the influence of the narcotic on the nervous system, but a morbid state of the larynx, trachea, and lungs, results from the direct action of the smoke. The voice is observed to be rendered hoarser, and with a deeper tone; sometimes a short cough results; and in one case that came under my notice ulceration of the cartilages of the larynx was, I felt quite certain, a consequence of excessive use of tobacco. This individual had originally contracted the habit of smoking when a sailor, and it had become so inveterate that he literally was never without a pipe in his mouth except when eating or sleeping. If he awoke in the night he lighted his pipe; the moment he finished a meal he did the same. It is only in extreme cases like this that the inference can be fairly made as to the morbid results of the habit, because there are so many other causes of disease to be estimated at the same time. This particular instance has, however, during my experience, been corroborated by others of a like kind, and I have come to the conclusion that inflammation and ulceration of the larynx in men are almost exclusively peculiar to the slaves of excessive tobacco-smoking.

Hæmoptoë is another morbid condition distinctly traceable to this habit. The patient experiences a slight tickling low down in the pharynx or trachea, and hawks up rather than coughs up a dark grumous-looking blood. I have not been able to ascertain whence this comes. I have known it to flow out of the patient's mouth during the night, or to be effused shortly after lying down. It is a symptom worthy especial notice, however, because it gives great alarm, and may be readily mistaken for pulmonary hæmoptysis, or an expectoration of blood.

The action of tobacco-smoking on the heart, so far as I have observed, is depressing. The individual who, from some peculiarity of constitution, feels it in this organ rather than elsewhere, usually complains of a peculiar uneasy sensation about the left nipple—a distressing feeling—not amounting to faintness, but allied to it. In such an example no morbid sound can be detected, but the action of the heart is observed to be feeble, and slightly irregular in rhythm; yet not always so in the same person. An uneasy feeling is also experienced in or beneath the pectoral muscles, but oftener, I think, on the right side than on the left.

On the brain the action of tobacco-smoking is sedative. It appears to diminish the rapidity of cerebral action and check the flow of ideas through the mind. This, I think, is a certain result; and it is in consequence of this action that smoking is so habitual with studious men, or men of contemplative minds. The phrases, "a quiet pipe," or a "comfortable cigar," are significant of this sedative action. It differs, however, in kind from that of opium or henbane, because, as a *general* rule, tobacco does not dispose to sleep; it may in *individual* instances, but not generally, with tobacco-smokers. On the contrary, it rather excites to watchfulness, and in this respect is allied to green tea in its action: or, if not to wakefulness, to dreams, which leave no impression on the memory. When this effect has passed off, there appears to be a greater susceptibility in the nervous centres to impressions, as indicated by trembling of the hands, and irritability of temper.

There are a few facts which I would now state generally, and which appear as secondary results of smoking. Constipation and hæmorrhoids are often experienced by inveterate smokers. Acne of the face I have observed to be excited and kept up by the habit, and to disappear with the discontinuance of the latter. Blackness of the teeth and gum-boils are not uncommon results. There is also a sallow paleness of the complexion, an irresoluteness of disposition, a want of life and energy, to be observed occasionally in inveterate smokers, who are content with smoking,—that is to say, who do not drink. I have suspected also that it has induced pulmonary phthisis. It is thought that the sexual energy is impaired by the habit, but on this point I have no facts to detail.—*London Medical Gazette.*

Erysipelas of New-born Children. By Prof. Trousseau.—This is one of the most dangerous maladies which can affect the new-born child, not only in hospitals but in private practice; it is almost invariably fatal, particularly during the first month of extra-uterine life. Its danger gradually decreases as the child grows older; but still, after the fourth month, about one-half of the infants affected with it sink under its symptoms. The first appearance of this malady is treacherously insignificant; the child has merely lost a little of his good humour; his sleep is slightly diminished, and he sucks rather less than before; at the same time the skin of the pubes is the seat of a small red patch, painful to pressure; the redness gradually gains in extent on the body and limbs, and is occasionally disseminated; but when, in their turn, the foot and hand become affected, they acquire a degree of swelling and redness far greater than that assumed by the eruption in any other region. The genital organs sometimes sphacelate, in consequence of the local inflammation, and in many cases acquire an emphysematous appearance. The pubes is not the only part from which the erysipelas may take its departure; it has been observed to arise from the redness which surrounds the vaccine pustule, less frequently from any accidental laceration of the skin, or from any one of those divisions so common in the inguinal or other cutaneous folds. The general symptoms are interesting in many respects, and amongst others, because their mildness almost inevitably leads the unwary to commit errors of prognosis, which in private practice are neither forgotten nor forgiven. At first the disease appears perfectly local; it is not until several days have elapsed that general uneasiness and crossness show themselves. The color of the skin, the expression of the countenance, often remain for some days perfectly satisfactory, when suddenly an ashy cadaverous paleness is observed, and with that degree of intensity that the child seems to be sinking under copious hemorrhage. The cry becomes incessant, jactitation continual, and loss of sleep absolute. These signs are followed by deep stupor and death; the pulse is at first frequent, and the heat of the skin ceases only during the terminal and fatal stupor. Convulsions, diarrhœa, and vomiting are very seldom met with. When the progress is such as we have described, peritonitis has occurred—a frequent disease in children, and one which has not been hitherto described. The duration of the disease varies considerably, sometimes being frightfully short, at others, on the contrary, being prolonged so far as three weeks.

On *post-mortem* examination the cutaneous alterations are occasionally the only changes observed; but when peritonitis (a frequent complication) has been present, the umbilical vein is often found inflamed and filled with pus as far as the transversal furrow of the liver, and inflammatory secretions are found on the peritoneal surface of the abdominal viscera.

Of the probable cause of the malady we may say this much, that we observe it principally when an ill wind of puerperal fever blows over the lying-in hospitals of Paris. The children seem to have inherited from their mother a purulent diathesis, and they appear still to be within certain limits subject to the same ailments as the mother, whose constitution has so lately been theirs. The peritonitis of the children may be, therefore, as aptly termed puerperal as that of the mother, because its general cause is to be sought for in the circumstances which have accompanied the last stage of child-bearing and parturition. It is natural that the skin should be the seat of disease, because that surface has been so lately called upon to perform functions as new as they are important; in such children the umbilical cicatrix does not form readily, and is sometimes the occasional, the local cause of the cutaneous disturbance. With regard to the treatment, we have tried almost every local application imaginable, and without success; ointments, lotions, blisters—even the actual cautery—without suspending the progress of the disease. Three cases only have we seen recover during the first month under the use of the ethereal solution of camphor, and of baths containing corrosive sublimate; but in how many have we not since tried the same methods without the slightest benefit!—*London Medical Times.*

Treatment of Epilepsy.—Dr. Branson communicated to the Sheffield Medical Society, Oct. 29th, 1846, "A numerical Analysis of the Treatment of Forty-two Cases of Epilepsy."

After alluding to the importance of the numerical method of investigating disease, introduced by Louis, he stated that the forty-two cases occurred in 3413 registered cases, being in the proportion of one in eighty-one. Eighteen occurred in males—twenty-four in females, which corresponds with the observations of the French pathologists, but is contrary to the opinion of Drs. Watson and Elliotson, who regard the male sex as more liable to epilepsy than the female:—Under the age of 7 there were 4 males, 2 females; from 7 to 14, 6 males, 2 females; from 14 to 21, 2 males, 6 females; from 21 to 31, 4 males, 10 females; from 31 to 41, 2 males, 2 females; from 41 to 51, 0 males, 2 females.

From this it appears that under puberty the male, afterwards the female sex, is most liable. The predisposition which seems to exist in the female sex between the ages of fourteen and thirty-one may be regarded merely as an indication of the hysterical temperament, the extremes of hysteria and epilepsy being separated by a very narrow line. Of these cases, twenty were centric, and twenty-two eccentric.

Of the eccentric:—6 were connected with amenorrhœa; 7 with intestinal irritation and worms; 2 with undue lactation; 2 with dentition; 1 with menorrhagia; 2 with cessation of the catamenia; 2 with accident—one from a blow on the head inflicted by a schoolmaster, by which the boy was rendered insensible for some weeks, and the other from the breaking of a grinding stone.

One of the cases classed under the head of worms might be called centric, for though the patient parted with a lumbricus teres, the origin of the fit could clearly be traced to fright, from the relation of ghost stories.

Of the eccentric cases:—5 were treated with nitrate of silver; 6 with preparations of steel; 11 with active purgatives, blisters, leeches, turpentine, asafœtida, and vegetable tonics. Of the centric cases:—13 were treated with nitrate of silver; 7 without nitrate of silver; with purgatives, blisters, setons, steel, and valerian.

Of the five eccentric cases treated by nitrate of silver, there were:—cured 1, relieved 1, much relieved 2, not relieved 1.

Of the six treated with steel, there were:—cured 1, relieved 1, much relieved 0, not relieved 4.

Of the eleven treated otherwise, there were:—cured 4, relieved 1, much relieved 0, not relieved 6.

Of the thirteen centric cases treated by nitrate of silver, there were:—cured 0, relieved 4, much relieved 2, not relieved 7.

Of the seven treated by other remedies, there were:—cured 0, relieved 0, much relieved 1, not relieved 6.

The duration of treatment varied from three weeks to seventeen months; the average being about three months. Thus of the eighteen cases of both kinds treated by nitrate of silver, ten derived benefit; whilst of the remaining twenty-four, eight only received benefit, the result being clearly in favour of nitrate of silver as a remedy in epilepsy.

The great objection to the use of this remedy is its well-known property of permanently staining the skin, by a continuance of its use—a property which has been so great an objection in the minds of some eminent physicians, as to almost induce them to discard it, though, at the same time, they acknowledge its efficacy. Dr. Branson had the same fear, until he detected an indication which, he is inclined to think, may prove a valuable safeguard in its administration. The first case in which he observed this indication was that of a man aged 32, who, in consequence of epilepsy long continued, commenced the use of nitrate of silver on the 24th of November, 1843, and continued it until April, 1845. After taking it about three months, he was evidently relieved. In December, 1844, he had been free from fits for eleven weeks, a much longer period than usual. It occurred to Dr. Branson, that the silver, like mercury and lead, might probably show its action on the gums, and on examination he found a dark blue line very similar to that produced by lead, on the edges of both gums close to the teeth. This he pointed out to some of his colleagues, and amongst others, to the late Dr. Favel, who pronounced it to be the effect of lead; but, on examining a case of his own, he found the same line existing. Not then understanding fully this warning indication, Dr. Branson continued the use of the remedy four months longer, at the end of which period he found a very slight duskiness of complexion. In another case in which the complexion had become slightly tinged, there was a well-marked blue line. The line is at first very faint, but gradually assumes a darker tint, and it is well to examine the healthy gum before administering the silver, so as to be able to detect the slightest change of color. It is of a somewhat blacker hue than that from lead, (in Dr. Branson's opinion, having had the opportunity of comparing them), and is not so easily produced as that from lead.

In ten cases which have occurred since, he has found its existence in eight. In two cases it was detected at the end of a fortnight. In four cases it was detected at the end of three, four, six, and seven weeks. In the two in which the line was *not* found, the use of the silver was continued for five months. In two of the cases the line was more strongly marked on the lower than on the upper gum.—*Provincial Med. and Surg. Journal.*

Tuberculous Abscess in the Pancreas.—The rare occurrence of disease of the pancreas renders the following case interesting. The subject of the case was a young female, aged 25, who had for a considerable time been out of health. Four years ago she had suffered for about two months from severe pain at the lower part of the chest, extending through to the back, which prevented her from lying on her right side or on her back. After the subsidence of this attack she seems to have continued in tolerable health for nearly three years, at the end of which time she became affected with lassitude and debility, uneasiness in the chest and bilious vomiting. The vomiting would sometimes last four or six hours. From this time her skin slowly and gradually became jaundiced, and continued so to the date at which she came under M. Cruveilhier's care, who has recorded the case. She complained at this time chiefly of loss of appetite, and inability to lie on her back in bed unless propped up. Her tongue was moist, and digestion good; but her bowels were obstinately confined, so that she did not require to go to the closet oftener than once in four or five days. The evacuations possessed their natural color. She had some uneasiness on pressure over the epigastrium. The margin of the liver could be felt below the cartilages of the ribs, and appeared slightly enlarged: some pain was caused by pressure over this organ. The urine was not high colored, and formed no precipitate on the addition of nitric acid. She had now very little uneasiness in the chest; no cough, palpitation, or headache. Neither by auscultation nor by percussion could any thing abnormal be detected in the lungs or heart. Some slight remedies were made use of. In about a week she became feverish and generally ill, without any known cause: in the evening of the same day she vomited some bile. The vomiting continued next day, and was accompanied by loss of appetite, and severe pain at the pit of the stomach. The pulse was 100, small and feeble. The vomiting was almost incessant for the two following days, when she became extremely exhausted: the pain in the epigastrium was most severe. No evacuation from the bowels had taken place since the commencement of the attack. Tongue dry, furred, white on the dorsum, red at the tip. Pulse 90, small. She died exhausted the same evening.

The liver was found rather larger than natural; its right lobe firm in texture, and of a peculiar grayish green color throughout. About two ounces of dark green bile were contained in the gall-bladder. The glands in the neighbourhood of the stomach were enlarged, softened, and infiltrated with a blackish matter. Those near the pancreas were also enlarged, and filled with tuberculous matter. The pancreas was about natural in size. Within its last half, or tail, was found an abscess, capable of holding a small hen's egg. It was filled with thick purulent matter, and its cavity was lined by a thick and tough, grayish, organized membrane, within and around which were numerous softened tubercles. External to the abscess the tissue of the pancreas was spread out, and appeared atrophied. The right half of the pancreas was dark colored, but healthy in structure. The pancreatic duct was entire. Two small cretaceous masses of tubercles were found in the spleen, and two similar ones in the apex of the left lung. Traces of recent violent inflammation were found in the stomach, the duodenum, and for a short way down the jejunum.—*London Med. Gaz. from Gaz. des Hôpitaux.*

Diet in Infancy.—Dr. Klencke* calls attention to the important deterioration which the milk of stall-fed cows undergoes, and is inclined to attribute the production of scrofula in children in many instances. to its direct transmission through the medium of that fluid. Although the direct production of scrofula by the contagious properties of the milk is assumed rather than proved in this pamphlet, still the fact is very important that stall-fed cows often become tuberculous, and that their milk loses much or even the whole of its sugar, that the butter and casein diminish, while albumen is found, sometimes in as high a proportion as 15 per cent., and elain in the proportion of 1·4 per cent., and that in some cases lactic acid is likewise present.

In a well-written paper on the subject of diet in children, Dr. Marotte† draws attention to the error often committed in placing infants on a spare diet, who have been observed not to thrive at the breast, but to suffer from diarrhœa, and to lose flesh. The real means of cure would consist in obtaining a wet-nurse for the child, and thus providing it with a more, instead of a less, nutritious food. Many instances of gastro-intestinal disorder in childhood depend, in his opinion, on the want of a more highly animalized diet. It is, therefore, as a general rule, undesirable to dilute the milk of the herbivora, already poor in animal constituents; while in those cases where it is necessary to supply deficiency in the nutritive qualities of the nurse's milk, chicken or other broth, either alone or mixed with milk, should be used for that purpose.—*West's Report.*

Tubercles in Bones.—Dr. Watts communicated to the Manchester Pathological Society a case of tubercle in the cancellated structure of the bones, which he illustrated by a series of drawings.

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* Ueber die Ansteckung und Verbreitung der Scrofelkrankheit bei Menschen durch den Genuss der Kuhmilch. Leipzig, 1846, and an abstract of it in J. f. Kinderkr., June, 1846.

† Journal de Médecine, August, 1845; and J. f. Kinderkr, March, 1846.

The patient, a pale-looking, badly-grown, strumous boy, sixteen years of age, who came under treatment for dropsy of the belly and anasarca, died, gradually exhausted with hectic fever. He had no symptom which could have revealed the existence of the disease found on examination after death.

The cavities of the chest and belly contained much serous fluid. The peritoneum was everywhere thickened, lead-colored, and studded over with tubercles. The glands of the mesentery were enlarged and tuberculous. There was an immense abscess, containing four pints of curdy pus, situated on each side and in front of the spine, which was here denuded of periosteum. The kidneys were enlarged and pale. The testes were small, and had not passed out of the abdomen. Very little tubercle obtained in the lungs, merely a few gray granulations. There was a cicatrix on the inner aspect of the left shoulder, where an abscess had opened two years previously, which, after discharging matter for some time, healed. The boy had not lately complained of pain in this part. On opening the joint, pus escaped; the articulating surface of the humerus was rough from being denuded of its usual smooth covering. The section exposed to view a most perfect specimen of yellow tubercles in the cancellated structure of the head and neck of the bone. The cancellated substance was deeply congested with blood, intensely red, and slightly, perhaps, softer than in its healthiest condition; in the midst of the red cancellæ were seen the straw-colored tubercles, with irregular-shaped but clearly-defined margins. Similar tubercles were also found in the diseased lumbar vertebræ.

These tubercles presented essentially the same microscopical appearance as yellow pulmonary tubercle. They consisted of remarkably well-developed tubercle concretions and granular matters, in which were seen here and there a few oil-globules, and everywhere innumerable gaseous bubbles of the most minute size, like mere points, probably the product of chemical changes.

The concretions were perfect specimens of their kind, and withal more plump than those usually met with in the tubercle of lung. Magnified 800 diameters, they resembled fragments of gum-arabic, slightly softened in water. They were faintly yellow, and so far transparent that, on mixing a portion of the tubercle in water, the outlines of the concretions deeper in the streams could be seen through those swimming above them.

Dr. Watts remarked, that the formation of tubercle in the bones had been doubted by many, and it is only a few years ago that the question was satisfactorily determined in the affirmative. The French and German pathologists first established the truth of its existence, but published no account of its microscopical appearances. The present case is therefore the more interesting as it further confirms the fact by the evidence exposed by the microscope.

Respecting the manner in which tubercles form in the osseous structures, he was inclined to think there would be found a series of cases, the present serving as the type, in which the morbid product is deposited in portions of cancellated structure already in a state of disease, analogous in some of its prominent features to inflammation, though differing therefrom in other particulars. The cancellated structure becomes, in these instances, deeply congested with blood, its nutrition is disturbed, it apparently has some tendency to softening, and a badly-vitalized germ, in physical properties resembling coagulable lymph, is exuded into spots, and forms into tubercle, all of which may happen without the excess of heat, or manifestation of pain, usually attending inflammation. Yet this should not be regarded as any objection to the possible formation of these tubercles in another series of cases, in complication or coincidently with the most unmistakable phenomena of the inflammatory process.—*London Med. Gaz.*

On the Fallacies attending Physical Diagnosis in Diseases of the Chest. By Thomas Addison, M. D.—[As Dr. Addison justly remarks in his introduction to the following communication, there is no one thing which has been more prejudicial to the study of auscultation than the overweening importance and assumption of infallibility attached to it by some of its ill-judged advocates. Great as the assistance undoubtedly is which it affords as an adjunct to the investigation of the rational signs of disease, it is indisputable that even in the hands of a proficient the stethoscope will often lead to mistakes in diagnosis if it be exclusively relied upon, to the neglect of the information to be derived from other sources. To strip the stethoscope of the extravagant and meretricious pretensions thrust upon it by judicious friends, to make a candid acknowledgment of the manifold difficulties to be encountered in its employment, is Dr. Addison's aim, and although we are of the number of those who look upon a knowledge of auscultation as indispensable to make not only an accomplished, but even mediocre physician, we are glad of the opportunity of laying before our readers so clear and candid a statement of the fallacies to which it is occasionally subservient. The author has adopted the method of enunciating certain propositions, the principal of which are thus exhibited :]

1. It is well known that many persons while under examination, entirely fail to perform the respiratory act efficiently, either from nervousness, or from mistaking the manner of accomplishing it. This may lead to an erroneous belief that the respiratory murmur is deficient, or even absent, while the lungs are perfectly healthy.

This source of fallacy is avoided by desiring the patient to cough, and to inspire deeply, so as to cough a second time. This done on both sides of the chest, the actual state of either lung may be ascertained with tolerable precision.

2. Whatever lessens the freedom, mobility, or elasticity of the ribs, renders the sound on percussion more dull. Hence it is that in rickety persons, where deformity of the chest has taken place subsequent to birth, the signs furnished by percussion are often extremely unsatisfactory ; and, indeed, under such circumstances, neither percussion, nor in many instances auscultation, can be much relied upon.

3. Some persons with actual deformity have naturally such fixedness of the ribs, that they at all times manifest very imperfect resonance, as well as considerable feebleness of the respiratory murmur.

4. The rigidity of the cartilages of the ribs in advanced life has a similar effect; and, moreover, often tends to throw obscurity over hypertrophy of the heart by preventing the usual heaving of the ribs at each systole of the hypertrophied organ.

5. When exploring the chest in a case of recent disease, we may be misled by the permanent effect of an ancient pleurisy.

[The physical signs of old pleuritic contraction independent of deformity palpable to the senses, are stated to be, " dulness on percussion, feebleness or absence of the respiratory murmur, constrained movements of the ribs, dry crepitation, and harsh sonorous râle during inspiration." The value of these signs is much increased by their incompatibility with the recent history of the case.]

6. When, as usually happens, rickety deformity of the chest consists in lateral flattening of the ribs, with projection of the sternum, the action of the heart is liable to beat with such violence, and over so diffused a space, as to lead to the unfounded apprehension of organic disease of the organ.

7. The dulness on percussion caused by pushing up of the diaphragm by an enlarged liver, or fluid in the peritoneum, is liable to be mistaken for dulness caused by fluid in the pleura.

8. Bronchitis is a frequent source of fallacy, it may greatly obscure pneumonia, phthisis, and pleurisy, as well as other chronic diseases of the organs.

9. When the bronchitic complication of phthisis is considerable we often fail to detect some or all of the physical signs of the latter, such as dulness on percussion, tubular respiration, and even bronchophony and pectoriloquy. This is more especially the case in the earlier stages.

[It is under these circumstances, Dr. Addison observes, that the too exclusive stethoscopist is liable to be beaten in diagnosis by those who altogether reject physical examination, but the former will obviously have the advantage if he institutes, likewise, a careful inquiry into the history of the patient, and the rational signs of his disease. According to Dr. Addison, the individual symptom which, above all others, should lead to the apprehension of tubercular disease, is occasional slight hæmoptysis just sufficient to tinge the sputa.]

10. Dulness of sound on percussion, tubular respiration, bronchophony, pectoriloquy, and gurgling, are not necessarily conclusive of phthisis. All these signs may result from changes induced by a former pleurisy, from pleuropneumonia, or whooping-cough, [? Ed.] or even from recent pneumonia or pleurisy associated with considerable bronchitis.

[Cases are given in illustration of this proposition.]

11. When, in phthisis, the larynx is so involved as to impede the entrance of air and give rise to permanent sonorous râle in the tube, the reverberation of this râle through the entire chest is apt to lead to the erroneous suspicion of disease in the lungs.

12. Complete loss of voice from disease of the larynx almost completely nullifies the results of auscultation.

13. The existence of a cavity may be overlooked if the bronchial tubes leading into it are plugged with mucus.

In every case of suspected phthisis the patient should be made to breathe and cough with violence; this will dislodge mucosities and render the existence of a cavity perceptible.

14. A patient may have all the rational signs of incipient phthisis while auscultation does not reveal any change in the lungs.

Similar symptoms may arise from relaxed uvula, and in hysteria.

15. Dilated bronchial tubes surrounded by indurated pulmonary tissue, cannot be distinguished from phthisical lesion by auscultation alone, especially if situated in the apices of the lungs.

In such cases the diagnosis is chiefly formed by the history of the case.

16. Malignant disease of the lungs cannot be distinguished from other lesions by auscultation alone.

17. If acute pneumonia have proceeded to complete hepatization when we first examine the patient, the physical signs are frequently insufficient to distinguish it from tubercular consolidation, or ancient pulmonic induration. This is especially the case if the apex of the lung be the seat of the induration.

18. Pneumonia may occur without cough, and so closely resemble simple continued fever that both the stethoscopist and the non-stethoscopist are apt to be deceived.

In such a case the stethoscopist has infinitely the advantage, and will rarely fail to detect pneumonia by the physical signs.

19. When the anterior and inferior portion of the left lung is consolidated by pneumonia, it may not be detected by percussion on account of the proximity of a flatulent stomach. Under similar circumstances a marked amphoric respiration is produced, with metallic tinkling, leading to the erroneous conclusion that pneumo-thorax is present.

The respiration acquires its amphoric character by reverberating through the solid parts to the inflated stomach or bowels.

20. It cannot be determined by physical examination whether pneumonia have or have not supervened upon tubercles, although the prognosis in the two cases would be very different.

21. I doubt whether physical examination can in any instance determine, with certainty, the existence of simple tubercles in the lungs.

22. When serous effusion is very considerable, giving rise to unequivocal bronchophony, tubular respiration, and want of resonance and vocal vibration, physical examination has repeatedly led to a mistaken belief that these signs resulted from pneumonic or other consolidation of the lung.

23. When a patient presents himself with febrile affection of any kind, we may, on examination, detect dulness on percussion, tubular respiration, bron-

chophony, and a râle not distinguishable from the submucous crepitation commonly observed in pneumonic hepatization; and yet physical examination should not enable us to determine whether the chest affection be recent or of ancient date. When a portion of lung has been compressed by pleuritic effusion, and has been prevented from expanding again by adhesions, the physical signs may remain permanently, and be found to resemble precisely those which result from recent pleuro-pneumonia.

24. Experience leads me to the conclusion that pleuritic friction-sound cannot in all cases be distinguished from the rubbing produced between the inflamed peritoneal surfaces of the liver and diaphragm; neither can the croaking sounds produced in the bronchi be always distinguished from the pleuritic rub.

25. As simple pericarditis is rarely attended with pain, and as the other symptoms of that disease are equivocal, the physical signs are chiefly to be relied upon in forming a diagnosis. Nevertheless, when effusion has taken place to a certain amount the friction-sound commonly disappears, and auscultation fails to recognize the disease.

26. Enormous accumulations of fluid in the pericardium cannot always be distinguished from effusion into the cavity of the pleura.

27. When the pericardial friction-sound is single auscultation may fail to distinguish it from a valvular murmur, especially if it be situated over the region of the valves.

28. The double pericardial friction-sound may be confounded with the see-saw murmur of imperfect aortic valves, and vice versa.

This question may be almost decided by the characters of the pulse alone.

29. A sound closely resembling a murmur appears sometimes to be produced by the stroke of the heart against a portion of lung interposed between it and the parietes of the chest. Under such circumstances auscultation may lead to the erroneous conclusion that the heart is diseased.

This sound is most commonly heard at some point at the edge of the left lung, and resembles the *bruit de rape*. It may occasionally be made to disappear by a deep sustained inspiration. The author thinks it may be identical with the sound described by Dr. Latham as present in phthisis.

30. Auscultation fails to distinguish an aortic murmur depending on organic change from one which results from other causes; neither can it decide whether what has been called a mitral murmur is organic or functional.

31. In certain diseases of the heart it is difficult or impossible to localize the murmurs with accuracy, however pronounced they may be.

32. Auscultation cannot distinguish the murmur of an aneurismal artery from the murmur produced by external pressure upon the vessel.

33. Physical examination does not enable us to distinguish congenital malformation from disease of the heart or large vessels.—*Ranking's Abstract.*

Table of Urinary Deposits.—By Ray Charles Golding.

Lithates.

1. Urine, white, yellow, red, or pink.
2. Of acid re-action.
3. Clarified by heat.
4. Is soluble in alkalies.
5. Dissolves in nitric acid with effervescence.
6. Solution in alkalies precipitated by acids.

Phosphates.

1. Urine feebly acid, neutral, or alkaline, when tested with litmus paper.
2. Is soluble in weak acids.
3. Deposits unaffected by heat.
4. Deposit of phospate of lime, amorphous; urine of high specific gravity, unaffected by caustic potash.
5. Deposit of mixed or fusible phosphates; urine of low specific gravity, easily becoming putrid.
6. Triple phosphates: deposite crystalline, and soluble in acetic acid.

Oxalate of lime.

1. Urine mostly neutral, sometimes fully acid, or alkaline; specific gravity about 1020.
2. Is transparent, of a pale citron or greenish hue, and free from sediments.
3. Insoluble in acetic acid and in warm dilute nitric acid.
4. Oxalic acid set free by boiling with sulphuric acid. (?)
5. Alkaline efflorescence of carbonate of lime before the blowpipe, reddening moistened turmeric paper, if sufficient deposit can be collected: carbonic acid and carbonic oxide gases being at the same time evolved.

Cystic oxide.

1. Urine greenish-yellow, and as the phosphates generally co-exist with the cystine, it has a peculiarly fetid smell.
2. Is deficient in urea and lithic acid; specific gravity about 1020 or 1022.
3. Is rare in man, but prevalent in the canine and feline races.
4. Soluble in acids, fixed alkalies, and their carbonates.
5. Insoluble in alcohol, water, carbonate of ammonia, and nearly so in acetic acid.
6. Will not combine with the acetic, tartaric, or citric acids.
7. Soluble in caustic ammonia, but re-precipitated by acetic acid.

Sugar (Grape).

1. Saccharine urine peculiar to man.
2. Urine clear and green, unless the lithates or phosphates are accidently present.
3. Average specific gravity 1040; but may range from 1025 to 1055.
4. Has a sweet taste, a vapid odor, and readily ferments.
5. Trommer's test (Berlin, 1841): sulphate of protoxide of copper and liquor potassæ; a brown sub-oxide of copper is precipitated on boiling.
6. Growth of Torula (ovoid) at 70° F., and vinous fermentation with yeast at 80° F. (Christison).
7. Ronge's sulphuric acid test: carbon deposited.
8. Rich brown when boiled with an equal weight of caustic potash (Moore).
9. Hunefield's chromic acid test: bistre-brown color produced by exposure to bright solar light.

Albumen.

1. Specific gravity 1024, 1020, 1013, or lower.
2. Coagulated by heat and nitric acid, if no redundancy of lithates or phosphates exist.
3. If coagulum fragile is indicative of a chylous origin, and as such coagulates spontaneously, and contains blood discs.
4. Deposit of lithates equally well produced by nitric or muriatic acid: not so albumen.
5. Lithates dissolved by a gentle heat (about 70° F.); albumen coagulated at 157° F.

Pus.

1. Forms a greenish-yellow pulverulent deposit, closely resembling the phosphates, which becomes mucoid and tenacious on the addition of caustic potash.—(Babington.)
2. Pus-globules and sometimes oil-globules seen under the microscope.
3. Urine supernatant on the purulent deposit usually clear.
4. Renders urine acid, with no tendency to become alkaline.

Mucus.

1. Urine muddy and alkaline, does not contain oil-globules.
2. Urine contains phosphate of lime and triple phosphates in abundance.

Bile.

1. Coloring matter insoluble in water.
2. Stains linen permanently reddish-brown.
3. Precipitated green by muriatic acid.

4. Nitric acid produces a greenish tinge, soon passing to red, blue, violet, and pink.

5. Soluble in caustic potash.

Xanthic Oxide.

1. Urine very similar in appearance and reaction, to lithic urine.

2. Yellow hue produced by nitric acid, and a reddish one by caustic potash.

Urea.

1. Urine of high specific gravity.

2. Crystal of nitrate of urea, produced by the addition of nitric acid to the urine and exposed to cold.

Blood.

1. Blood discs seen under the microscrope.

2. If much blood be present the urine will be albuminous.

3. A light red color sometimes produced on the addition of common salt to bloody urine.—*London Medical Gazette.*

Urinary Deposits, with their Characteristics and Tests. By W. Proctor, Esq., York.

I.—Colored.

(A.)—*Crystalline*, which is *uric acid*, characterized by having the rhombic form, or that of square tables; soluble in nitric acid by heat in effervescence, which, on evaporation, leaves a beautiful pink deposit (mureid of Liebig), becoming purple on the addition of ammonia; soluble in a boiling solution of potassa, from which hydrochloric acid precipitates it as a white gelatinous substance, speedily becoming crystalline. Before the blowpipe blackens and dissipates with a peculiar animal odour.

(B.)—*Amorphous*, which may be

1. Pink, red, or yellow *urate of ammonia:* is soluble in hot water, and again deposited on cooling; soluble in boiling solution of carbonate of potassa; boiled with solution of potassa, evolves ammonia; has all the characters of uric acid with nitric acid. Before the blowpipe comports itself as uric acid, except that it gives out ammonia and decrepitates strongly.

2. Red or brown blood.—Urine becomes opaque by heat or nitric acid.—Microscope detects the blood-discs, which often subside, and form a distinct layer at the bottom of the vessel; chloride of sodium, and other neutral salts, heighten the color.

3. Green or brown bile.—If, from the brown coloring matter (biliphocin), on addition of nitric acid, the urine becomes blue, then green, afterwards violet and red, and lastly assumes a yellow or yellowish-brown color; if in small quantity, the intermediate colors are not observed; hydrochloric acid changes the urine to green. If from bilin, this may be detected by Pettinkofer's test.

II.—Colorless.

(A.)—*Crystalline*, which may be

1. *Oxalate of lime.*—Octohedral or quadrilateral crystals; insoluble in acetic acid, soluble in nitric and hydrochloric acids; boiling with carbonate of potash; forms soluble oxalate of potash and insoluble carbonate of lime; the former gives characteristic reactions with chloride of calcium, sulphate of copper, and nitrate of silver. Before blowpipe becomes carbonate of lime; on continuing the heat, lime only is left, giving out heat on the addition of water, and browning turmeric paper.

2. *Phosphate of ammonia and magnesia* (triple phosphate), right rectangular or trilateral crystals; soluble in diluted mineral and acetic acids, from which, by an addition of ammonia precipitated in a crystalline form; soluble in boiling solution of potassa, with evolution of ammonia. Before the blowpipe gives off ammonia, and runs into a white enamel, addition of phosphate of lime imparts ready fusibility.

3. *Cystine* in simple or compound tables; insoluble in boiling water, soluble in ammonia (with odor of sweet briar) and alkalies, and precipitated by

acetic acid; insoluble in alcohol, tartaric and oxalic acids, and bicarbonate of ammonia.

(B.)—*Amorphous* may be

1. *Phosphate of lime.*—Readily soluble in dilute hydrochloric and nitric acids, sparingly in acetic; precipitated by ammonia in an amorphous condition, forming, when collected on a filter, a horny mass; oxalate of ammonia in these solutions gives a white precipitate. Before the blowpipe, first black and then white, leaving an ash, which is neutral.

2. *Urate of ammonia.*—Characters as above. (Colored B.)

Pus.—The microscope detects pus-globules. The urine coagulates more or less by heat; soluble in solution of potassa, forming a tenacious glairy fluid.

Mucus.—Insoluble in potassa; imparts little or no albumen to the urine, therefore slight or no coagulability by heat, etc.

Pettinkofer's test.—Add to the urine, by drops, two-thirds of its volume of sulphuric acid, keeping the mixture below 144°; add a few drops of a solution of cane sugar (one to five of water), and shake the mixture, when, if bilin be present, a violet-red color will be developed.—*London Lancet.*

On the Use of Stimulants in Fever. By Dr. Corrigan, of Dublin.—Let us, as we stand at the bed-side of a patient in typhus fever, recollect that in looking at the extent of the maculæ, or for the presence of petechiæ, or examining the distended vessels of the conjunctivæ, we are looking not at a mere local derangement, but that we are studying in these external indications the state generally of the circulatory system as a whole. In this view we can understand why we attach importance to the color of the maculæ; why we look upon rose-colored maculæ as a good sign, and dark-colored maculæ as indications of danger.

The dark-colored maculæ are indications of danger, because their color is owing, we know, to an enfeebled circulation. The feebler it is, the darker will be the color of the maculæ; while the more energetic is the capillary circulation, the more vivid will be the color of the blood passing through it. In this view we can also find an explanation of the fact, that a patient may have an intellect not disturbed, may have cool skin, a clean tongue, a soft abdomen, a pulse not above 70 or 80, with volition and sensibility perfect—and yet die of typhus fever in seven or eight days. Of what does the patient die in such a case? He dies of this lesion of the function of circulation. In most cases this lesion is not the only one present, although often the most prominent; but I wish to fix attention on it in this, that I may call an analytic view of fever, as it leads to practical rules for the administration of one of our most important agents in the treatment of fever, viz.: wine. You are too often bewildered in the directions as to its employment. You are told to beware of delirium in its administration, and yet again you read that delirium subsides under its use. You read instructions either to refrain from its use when the tongue is dry, or to judge of the propriety of continuing its exhibition by its effects on the tongue. Instead of attempting to reconcile all the contradictory statements, and too often inexplicable advices, that are laid down for you, turn from the books to the living book—the patient—and read from him. Ask yourself what is it in typhus fever you prescribe wine for? Is it for delirium? No. Is it to prevent its approach? Again, no. Do you give it for a dry tongue? Certainly not. What is it that, as you consider a patient's state, would lead you to think of its employment?—is it not the state of the function of circulation, taken as a whole, indexed to you by the pulse, on one hand, and by the state of the capillary system of circulation in the skin, on the other.

It is for this you give it. It is the specific remedy directed to remedy the general lesion of the function of circulation, and hence in its administration you may give it, and you must give it, whether there is or whether there is not delirium; for delirium may be present or absent in a case requiring its exhibition for the function of circulation. You should give it indifferently, whether the tongue is moist or dry, for the tongue may be either, and yet wine may be required; and hence the tongue becoming moist is not an indication that you may dispense with its use; nor its continuing dry, a sign to make you discontinue it. You may give it with a soft abdomen, or with an abdomen tympanitic, for similar reasons. You are giving wine, recollect, as the specific remedy for the lesion of the function of circulation (remember, always comprising under this the capillary and cardiac circulation); and by the change in the circulation, and by this alone, you are to judge of the necessity of continuing, decreasing, or augmenting its dose. Under its exhibition you will see the vessels of the conjunctiva contract, the maculæ, become rose-colored, and the patches of skin in the face, and on dependent portions of the body, lose their dark livid hue. Keep this, then, in mind, the lesion in fever for which you give wine, is the lesion of circulation, and if this function, from debility, require it, you must give it under all circumstances of derangement of other functions. Of the quantity required, it is quite impossible to lay down any rule. No two cases will have exactly the same amount of depression of circulatory energy; no two cases will require precisely the same amount of wine. In some cases, four to six ounces are enough for a few days, in continuance, to restore the circulation to sufficient tone; in other cases it requires as much as one ounce of wine every hour, or 24 ounces in 24 hours; and even in addition to this, as much as eight ounces of brandy; and all this barely sufficient to preserve the circulation from sinking.

We must never abandon a case of fever, as long as there is life; we must remember what the post mortem of the case of Rodmond tells us, that in its present form there is no structural disease; that the patient, even in the dying moment, is sinking from a mere lesion of function, and that even then recovery is not hopeless; and we must recollect what clinical observation of several cases even now under our own observation in the hospital tells us, that the patient, one day, in a state seemingly moribund, may on next day, or within twenty-four hours, be out of danger. It will not unfrequently happen, that even the power of swallowing is lost for several hours; that a small portion of brandy or wine can only be got down by raising the patient in bed, throwing spoonfuls of brandy into the pharynx, and then holding up the patient's head until it descends to the stomach, apparently almost by its gravity. Even thus it sometimes cannot be passed along to the stomach, but even then we can stimulate the circulating system by injections; and in some cases which you have seen, I am confident the preservation of life has been owing to ether, given in the form of injection every two hours, in quantities of two drachms, until, under its stimulating effect, the circulation gained some vigor, and the power of swallowing returned.

With the same object in stimulating the capillary circulation, blisters are applied in succession over the surface. The nurse is supplied with four or six blisters; one after another is applied, with intervals of six hours between them, over chest, abdomen, thighs, and legs. They are thus applied, not as counter-irritants, not to act as derivatives on internal structural disease, but as stimulants to excite the capillary system. An action produced in any part of it, will be conveyed through the whole, and thus their action on the skin coincides with and assists the action of the internal stimulus of wine, ammonia and brandy.—*Dublin Hospital Gazette.*

MIDWIFERY AND DISEASES OF FEMALES.

On the Constitution and Functions of the Cervix Uteri. By M. Negrier.—The following are the most important conclusions which M. N. draws from his investigations. The superior orifice of the cervix endeavours to contract powerfully the instant that the dilating body, whether the ovum or the fœtal head, has passed out of it; the superior orifice alone may oppose an obstacle to delivery, it alone may incarcerate the placenta, whereas the inferior orifice, when it has been fully and slowly dilated, returns to its ordinary size after a considerable time, and gradually. In females who are delivered for the first time, the orifices of the cervix contract before the walls of its cavity; and in women who have been delivered more than once, the lips of the external orifice close more slowly than the cavity of the cervix; and in all women the parietes of the cervix are thrown into folds from above downwards. These perpendicular folds result from the closure of the superior orifice, and are not entirely effaced even ten days after delivery. In cervical implantation of the placenta, M. N. seems to prefer plugging far before any other mode of treatment.—*Med. Examiner, from Arch. Gen. de Med.*

Fœtus, with left Arm partly amputated by the Funis coiled round it. (Dub. Quart. Jour. of Med. Scien., Nov., 1846.)—Dr. Beatty exhibited to the Pathological Society of Dublin, a preparation of a fœtus, of between the fifth and sixth months of utero-gestation, which he adduced in confirmation of the fact several years ago described by Dr. Montgomery, the spontaneous amputation of the limbs before birth. This specimen illustrates that process, and may help to explain why the fœtus is so often found maimed before it arrives at its full period. The left arm in this instance had been enveloped in a coil of the umbilical cord, which had so tightly constricted it as to cause the absorption of all the tissues with which it was in contact; this had occurred about the middle of the humerus, and, the soft parts being removed, only the bone preserved the continuity of the limb.—*Southern Jour. Med. and Phar.*

Hysteria.—The following conclusions respecting the pathology and treatment of hysteria appear in a memoir offered by M. Gendrin (Archives Gén., Sept., 1846), to the Académie de Médicine:

1st. Hysteria is not universally characterized by convulsive paroxysms: it is a *continuous* malady, the symptoms of which are always to be recognised during the interval between the paroxysms, as well as in the fit.

2d. In all cases of hysteria, without exception, a general or partial anæsthesia exists. In the slighter degrees, the anæsthesia occupies only particular parts of the integuments; in the more aggravated forms the whole integument is implicated, as are also such portions of the mucous membranes as are amenable to examination.

3d. There is no accordance between the degree of anæsthesia and the severity of the hysteric paroxysm.

4th. The greater number of patients experience over a limited part of the body a degree of hyperæsthesia which is in many cases the immediate cause of the fit.

5th. Paralysis is a frequent hysterical symptom, and may be prolonged for an indefinite time. This paralysis is the source of many serious errors in diagnosis.

6th. It is a mistake to consider the sensation of a ball in the throat as a constant accompaniment of hysteria.

7th. All the marvels related of late days as the production of animal magnetism are witnessed in spontaneous hysteria: so the insensibility which will allow a painful operation to be performed may be seen in hysteria.

8th. Of all medicinal agents there are none which is so efficacious as opium in large doses.—*Ranking's Abstract.*

Application of Ether Vapor to the Practice of Midwifery.—Professor Simpson has employed ether vapor in the practice of midwifery, and is the first, we believe, who has made the application of this agent. The case was perfectly successful, as the following extract will show:

"A few days ago, Professor Simpson stated to his class that he had practised with entire success the inhalation of sulphuric ether in a case of the most difficult form of labor, and where otherwise the sufferings of the patient would undoubtedly have been extreme. The mother was lame and deformed. At a former accouchement, the labor lasted three or four days, and, from the necessarily protracted use of instruments, the patient's agonies were very great. On the present occasion, Dr. Simpson had previously determined to avoid, if possible, the use of all instruments, and to attempt to extract the infant by the feet. He expected to be aided in this by the use of the ether inhalation. Accordingly, when labor had set in for a few hours, the patient was put under the influence of ether, and in a few minutes the child was turned and extracted, while the mother was altogether unconscious of the operation, and that, too, although the delivery was rendered excessively difficult, by the degree of compression to which the child's head required to be subjected. On afterwards awakening, or passing from her 'etheralized' condition to the state of common consciousness, one of the first circumstances of which the patient became aware, was the noise attendant on preparing a bath to resuscitate the infant. A remarkable circumstance pointed out in the case by Dr. Simpson was, that whilst breathing the ether, the labor pains or throes continued, and yet the mother (to speak paradoxically) felt no pains. We hear she is rapidly recovering. This is, we believe, the first instance in which this new and extraordinary agent has been employed in the practice of midwifery."—*London Med. Gazette.*

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Wound of the Gravid Uterus—premature delivery—peritonitis—recovery. —The subject of this case was a peasant woman to whom Dr. Czajewski was called on the 20th July, 1845. The patient was 27 years of age, of habitually good health, advanced five months and a half in her pregnancy, was chasing a cow with a pitchfork, which she held by the forked extremity. The handle of the instrument accidently became fixed in the ground, and the woman, carried on by the rapidity of her movement, fell on the pitchfork, which penetrated deeply into the abdomen. Through both wounds a green and yellowish fluid escaped in intermittent streams, but the patient preserved sufficient strength to walk to her home, distant 500 metres (about one-third of a mile). During the following two days she remained in bed, and on the morning of the 20th of July was delivered by Dr. C. of a still-born child. On the body of the fœtus a wound several milimetres in depth was observed on the lower angle of the left scapula. The placenta was also perforated in the vicinity of its circumference. Some symptoms of peritoneal inflammation having been observed, leeches were applied twice, and mercurial ointment was rubbed over the surface of the abdomen, the wounds of which healed at once. One of them burst open eighteen days after the accident, and yielded passage to six ounces of fetid pus, and afterwards to fecal matter. This orifice was seated at one inch from the symphysis pubis, at four from the umbilicus and rather to the right side. Its extent was a little more than one inch. The fistula was cauterized several times, and was completely obliterated within the space of five months.—*Am. Jour. Med. Science, from Journal de. Chirurgie.*

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On the Treatment of After-Pains. By Edward Rigby, M.D., Senior Physician to the General Lying-in Hospital, &c. &c.—We find these pains after most labors, but they vary much, both in duration and severity. They are always most severe in women who have borne many children, and in some multiparæ they continue from 24 hours to three days. These pains, in common with those of labor, depend on contraction of the uterus; and these contractions are kept up after labor, by the presence of the lochia, or of coagula of blood, or of shreds of membrane in the cavity of the uterus. The after-pains, therefore, you will easily understand, are essential to the due emptying of this organ. After-pains are not usually felt in primiparæ. In multiparæ, when the woman is quite healthy, they seldom continue very long. When very severe, and of very long continuance, they may be considered as indicating the presence of inflammation, or, at all events, of a state bordering on inflammation. The pain no longer comes and goes in distinct intermissions, but it gradually becomes constant; the uterus, too, becomes tender on pressure, and the other symptoms of inflammation are established; but we shall have to consider this subject hereafter, when speaking of puerperal fever. It must, however, be borne in mind, that long-continued and severe after-pains may form an insidious transition to a state of inflammation.

The treatment pursued during the last few days of pregnancy has great influence in modifying the after-pains. If the woman be allowed to go, even up to the period of her labor, with her bowels confined and loaded with unhealthy fæces, and with the secretions of the primæ viæ disordered, the uterus seldom contracts well during labor, and, under these circumstances, after-pains are sometimes very severe. The too rapid expulsion of the placenta, and the hasty conclusion of the last stage of labor, so that the uterus does not contract fully and firmly, are also causes of the contractions which cause these after-pains; and, in these cases, the after-pains are useful in expelling the clots and lochia, which, if allowed to remain, would become putrid, and thus prove a source of irritation, and, perhaps, give rise to puerperal fever. When the practitioner neglects to apply the child to the breast as soon as labor is concluded, the uterus does not contract fully, as before mentioned; this, therefore, is another reason for early sucking. In speaking of the application of the child to the breast, it was omitted to mention the fact of nurses having a saying, that "the child brings after-pains." This occurs, to a great extent, when the infant is not applied to the breast, until the third day, and is, therefore, another reason, if more were required, for its early application.

Although after-pains are commonly, no doubt, excited by the presence of coagula in the cavity of the uterus, still they may sometimes occur when no such coagula are to be found. On this subject Dr. Burton, of York, who published in 1751, has given some curious observations, which explain one cause of after-pains very satisfactorily. Dr. Burton says: "upon the expulsion of the child and the placenta, the orifices of the uterine sinuses must contract, and thus retain the grumous blood which is in them; hence the use and benefit of these after-pains, which by stimulating and compressing the vessels and muscular fibres, make them exert their force to squeeze out this grumous blood, which otherwise might remain there, and occasion inflammation, suppuration, &c., from all which we find that these after-pains are necessary towards removing or preventing an inflammation of the womb; therefore, we must not be too forward in giving strong opiates, and other internal medicines, which may take them off whilst this grumous blood is lodged within those sinuses. I doubt not," continues Dr. Burton, "that those patients who die from the eighth to the fourteenth day, whose uterus has been inflamed with the symptoms above mentioned, have been injured by the too free use of opiates." The discharge, in these cases, contains little vermiform shreds, and these shreds do not consist of portions of membrane which have been left behind, but they are the casts or moulds, as it were, of the cavities of the blood-vessels, and are composed of their contents coagulated. Dr. Burton mentions a case to which he was called, in consequence of severe after-pains coming on some time after labor; in this case, having introduced his hand with some difficulty, he perceived several small membraneous strings, as he then thought them, adhering to the uterus; but, he says, "I was soon undeceived, for, upon expanding my fingers, by which I stretched the womb a little, several of these came into my hand, which I drew out, and found what I had imagined to be membranes to be only oblong grumous blood, resembling fibres, like those that adhere to a spatula after stirring arterial blood in a basin for some time. I introduced my hand a second time," he continues, "and made the experiment again, but found none of these little clots within the cavity of the womb; yet, upon expanding my hand, several came out of the orifices again, which I could plainly perceive, and, after keeping my hand there a little while, I brought away all that were in the cavity of the uterus, and the patient's complaints immediately abated, and she recovered well from that moment." These little vermiform fibres are, therefore, the casts of the blood-vessels, the contents of which had coagulated, having been retained by the contraction of their orifices. By being careful not to hasten the last stage of labor, so as to give the uterus time to contract slowly, the uterine sinuses expel their contents, and the annoyance of after-pains is, in many cases, altogether prevented.

It was formerly the practice always to administer a large dose of laudanum, to check these after-pains; and a most pernicious practice it was, but which happily has diminished considerably of late years. As much as forty minims of tincture of opium were administered as a rule in all cases by some accoucheurs. It is hardly necessary to point out the falsity of the reasoning on which this practice was founded. Opiates should never be given for the purpose of checking after-pains, unless they are very severe, or in some peculiar cases which will be hereafter considered. Should the patient, however, have been accustomed to an after-pain draught, as it is called, and seem to expect it, a little tincture or extract of hyosciamus or of lettuce may be given her. A mild sedative may, however, in many cases be useful after labor, as when the system is in a state of irritability and restlessness, consequent on the fatigue and irritation of a lengthened period of suffering; but in these cases a small dose of Dover's powder, or of the sedative solution of opium, will always prove sufficient. When after-pains continue very severe for some time after labor, the best plan of treatment will be to give the customary dose of castor oil a little earlier than usual; this will generally relieve the pains, on bringing away a quantity of fæcal matter. When the pains continue very severe, in spite of this treatment, the presence of inflammatory action may be suspected, and the treatment must be accordingly.—*Medical Times.*

MATERIA MEDICA AND PHARMACY.

On the Use of Alum in Cases of Habitual Constipation. By Dr. John Aldridge.—The author observes that the disease described by Dr. Marshall Hall under the name of mimosis acutus most frequently occurs between the ages of thirty and fifty, although occasionally it happens much earlier. It may attack every variety of temperament, but is most liable to present itself in persons of sedentary habits. Women are more subject to it than men. The individuals who labour under it, are usually of a dusky complexion, or, more exactly speaking, the skin always presents a dirty appearance. The face is frequently coated with a greasy-looking perspiration. The breath is foul, the gums spongy, and apt to bleed; the tongue broad, flat, flabby, indented at the margins by the presence of the teeth, and coated with mucopurulent exudation.(?) The bowels are usually constipated; yet the patient may tell you he has daily alvine evacuations, and yet the colon may be in a state of distention from fecal accumulation. The abdomen is swollen, and feels unequal to the hand, the course of the ascending and transverse colon being more resisting than the other parts to pressure; in these situations there is also sometimes tenderness, and even pain. Besides the foregoing symptoms, the patient almost constantly complains of headache; says he is very nervous, subject to tremors and sudden flushings of heat upon excitement, as well as palpitation of the heart, and epigastric throbbings.

Dr. Marshall Hall recommends active purgatives in the treatment of this disease. For a considerable time the author followed his advice, but found cause to be dissatisfied with the results. The patients, for a short period, expressed themselves relieved; but day after day the necessity for cathartics became more urgent, and the relief obtained became gradually less marked. He therefore commenced to inquire whether there was any other remedy likely to be more persistent in its benefit, and *alum* presented itself to his mind as a medicine fitted for controlling the pathological condition upon which he believed the disease to depend. Looking on mimosis acutus as a disease essentially consisting in a semi-paralytic state of the ganglionic nervous system, its analogy to colica pictonum seemed very evident; and, in connection with this analogy, the medicine that was found useful in the one disease would naturally present itself as being likely to prove beneficial in the other. Accordingly, he was led to administer alum in comparatively large doses, in cases of habitual costiveness accompanied by the symptoms described above, and found its use to be followed by advantages which could not be hoped for from the use of ordinary purgatives. He considers moderate doses of this medicine to be very useful, not only in restoring the healthy tone of the large intestines, enabling them to expel their contents, and rendering the continual use of purgatives unnecessary, but also in affording a universal firmness and strength to the system; it diminishes anormal and debilitating secretions, while it increases the renal. When alum is given in doses of a ℈j. or ʒss. without being conjoined with any purgative, in mimosis acutus, it produces large and very solid evacuations. For private practice the following formulæ may be employed:—

℞. Infusi Rosarum, ℥viij.; Sulphatis Magnesiæ, ℥j.; Aluminis, ʒij. M. Sumat cochlearia duo ampla cum aquæ cyathis vinariis duobus, primo mane, quotidie.

℞. Infusi Rosarum, ℥viiss.; Aluminis, ʒij.; Tr. Cardam. Comp. ℥ss. M. St. cochlearia ampla duo, ter dies.

Dublin Hospital Gazette.

⁂ The modus operandi of the alum in the above cases is probably precisely the same as that of the large doses of sulphate of zinc which were recommended a few years since in similar instances, a plan of treatment which we have ourselves employed with advantage.—*London Med. Gaz.*

Mode of giving Mercury to Children.—By Sir B. Brodie, Bart.—[Sir Benjamin considers inunction especially applicable in giving mercury to children. He uses the ointment as follows:]

I have provided a flannel roller, on one end of which I have spead some mercurial ointment—say a drachm, or more; and I have applied the roller, thus prepared, not very tight, round the knee; repeating the application daily. The motions of the child produce the necessary friction; and the cuticle being thin, the mercury easily enters the system. This causes neither griping nor purging; in a child it does not even in general cause soreness of gums, but it cures the disease. Very few of those children ultimately recover in whom the mercury has been given internally; but I have not seen a single case in which this other method of treatment has failed.

[We cannot say too much in favour of this mode of administering mercury to children. Since Sir B. Brodie's recommendation of inunction in adults (see Retrospect, vol. ix. p. 154), we have repeatedly tried its effects in children, knowing how very unsatisfactory was its exhibition by the mouth, when the system was required to be affected. We cannot but suspect that its failure in cases of acute hydrocephalus, in children, is often owing to its powerless effects when given by the mouth.

In a case which lately occurred in our practice, its effects seemed to be very evident and surprising. It was one in which some of the most urgent and fatal symptoms were present; such as very dilated pupils, constant convulsions, hemiplegia, and more or less stertorous breathing; in short, so violent were the symptoms, that we considered the case perfectly hopeless; but on reflecting on Sir Benjamin's method, we ordered the strong mercurial ointment to be smeared on each leg, every twelve hours, and covered with a stocking made to tie lightly above the knees. The symptoms soon began to abate, and by following this up with small doses of the iodide of potass, frequently repeated (gr. j., every three or four hours), the head symptoms vanished.

In a second case, the same set of symptoms were approaching, but were stopped by the same mode of treatment. We would, therefore, recommend our medical brethren to attend more to *mercurial inunction* in diseases of children.]—*Braithwaite's Retrospect, from British & Foreign Med. Review.*

Observations on Colchicum. By M. Donovan, Esq.—[Mr. Donovan thinks the drying of the bulb interferes with its powers. Dr. A. T. Thompson says, "The acrimony on which its virtue depends, is partially dissipated by drying and long keeping, and completely destroyed by any heat above 212°." The acetous extract, also, must be in a great measure destroyed, unless a steam-bath be employed. The vinum colchici of the three British pharmacopœias, is made from the dried bulbs, and therefore must be of inferior efficacy.]

I believe the most efficacious preparation of the bulb is the wine produced from it in its recent and undried state, as recommended by the late Sir Everard Home, who published three papers on it in the Philosophical Transactions for 1816 and 1817. In these papers he has given an account of its preparation, and of its effects therapeutic and physiological. He directs two pounds of the recent bulbs, undried, to be macerated with twenty-four ounces of sherry wine in a gentle heat for six days.

He convinced himself, by repeated trials, that this vinum colchici operates in every respect like the eau medicinale in removing the pains of gout. In his own case the symptoms disappeared in six hours after taking the remedy; but with other persons they did not go off for twelve hours, or even twenty-four. He found that, like the eau medicinale, it diminished the frequency of the pulse 10 or 20 beats in a minute, in twelve hours after taking the dose; and this he considers the criterion by which we may ascertain that the constitution is under its influence.

With regard to the modus operandi of colchicum, he conceives that it produces its effects on the circulation, and not on the stomach. This he ascertained in the following manner. Thirty drops of colchicum wine were injected into the circulation, through the jugular vein of a dog. The pulse increased 40 beats in a minute, and intermitted: in seven hours he had a motion, and was well. In another experiment, the same dog got a double dose by the jugular, which produced much languor; but he recovered. He says, that the effects on the dog were the same as on himself. In a violent fit of gout, he took sixty drops of eau medicinale, which he considers the same as wine of colchicum. He soon became hot and thirsty; in three hours the pain was much diminished; in seven hours nausea came on; his pulse, which was naturally 80, fell to 60, and intermitted; and he became languid; but next day he was quite recovered.

In another experiment Sir E. Home injected 160 drops of colchicum wine into the jugular of a dog; the animal instantly lost all power of voluntary motion; the breathing became slow; and the pulse was scarcely to be felt. In two hours the pulse rose from 80 to 150. In five hours after he became very languid, and the pulse was very weak; he vomited some bloody mucus and died. The stomach and duodenum were found in a high state of inflammation. These facts Sir E. Home conceives to prove that the effects are exerted on the circulation, and not on the stomach, in the same way as every poison is known first to enter the circulation, before it specifically affects particular parts.

At the suggestion of Sir E. Home, these experiments on dogs were repeated, with eau medicinale in place of colchicum, by Mr. Gatcombe, and the results were nearly the same; which is a still further evidence of the identity of these two medicines. The colchicum bulb, Sir E. Home says, contains both extractive and mucilage, both of which, wine, in the first instance, takes up; but when the liquor is strained and allowed to stand, a considerable deposit is almost immediately separated. This deposit he found to be not only active but virulent; six grains of it given to a dog, by the mouth, produced vomiting and purging which continued for twenty-four hours, the latter evacuations of both kinds being tinged with blood.

Coinciding with the supposed identity of the eau medicinale, which also lets fall a deposit, Sir E. Home concludes, from some experiments, that this remedy, when it contains the deposit suspended in it, produces double the irritation on the stomach and intestines that the clear vinum colchici does. He found that in an instance where he took a dose of eau medicinale, without having shaken the bottle, it was mild in its effects; but that the other half, which contained the deposit, when swallowed, on a different occasion, was very severe.

When the deposit is separated from wine of colchicum, he found that it by no means becomes inert. On the contrary the filtered wine cured a person, on whom it was tried, of a fit of the gout, as well as if it had been in it. These facts are of great importance, and require to be attended to in the use of this medicine; for we can separate the vomiting and purging portion from that portion which only exerts a specific action on the gout, by removing the deposit from the eau medicinale or colchicum wine, according to the conditions of the patient's case; and this is more necessary in the use of the eau medicinale, as its violence has in some cases proved fatal. The sale of eau medicinale was some years since prohibited in France on account of a nefarious use to which it had been applied. The deposit is, most probably, as Sir E. Home and Mr. Brande suppose, a substance analogous to the deposit which settles from the juice of the wild cucumber named elaterium. This once separated, the juice becomes, like the filtered colchicum wine, mild in its operations.

Sir Joseph Banks, convinced by the evidence contained in these papers of Sir Everard Home, that the vinum colchici, from which the deposit has been removed, must be a less hurtful medicine than the eau medicinale, thought it a duty to himself and the public to make trial of it. When the gout in his left hand and in the joints on that side of the body was very severe, he allowed Sir Everard Home to give him ninety drops of the vinum colchici, and found that the symptoms of gout were sooner and more completely removed than they had ever been by the eau medicinale of which he had experience during seven years, having taken it regularly, and kept a regular account of the doses, their effects, and the intervals between them.

When the variable strength of the different preparations of colchicum, arising from age, climate, soil, season, and manipulation, is considered, it becomes a question whether it might not be better to reject them all, and to introduce exclusively into the materia medica the active principle of the plant. Indeed, this idea has been already acted on in Italy. Professor Quadri recommends the employment of a proximate principle discovered by him in colchicum, which he calls colchicina, and which he found most useful in gout, and less inconvenient than the bulb. The production of known effects from a known dose would thus be as certainly insured as in the case of any other medicine. Another advantage would be, that, inasmuch as the antarthritic powers of the bulb cannot be always brought to bear on the disease, on account of the veratria, which Pelletier and Caventou proved it to contain, we could then increase the dose without any second source of apprehension.

Colchicina possesses great energy. MM. Gregier and Hesse administered one-tenth of a grain to a cat, eight weeks old, which killed the animal in twelve hours, after varied and excessive suffering. The stomach and intestines were found violently inflamed. Until this change is made, the best preparation of the bulb is undoubtedly Sir Everard Home's wine, made from the fresh bulb, dug at the end of July, sliced thin, and the slices, as fast as cut, instantly thrown into the wine. It is a common practice with physicians, in this country, to direct wine of the seeds of colchicum in their prescriptions, as if it were officinal in our pharmacopœias. But no such preparation is in them; and the misconception, so very general on this subject, is productive of much uncertainty and inconvenience to the apothecary. The vinum colchici of the pharmacopœias, as already remarked, is made from the dried bulbs, not from the seeds; from the latter a tincture is made; and, as it is one of great power, there ought to be no confusion connected with it.

I have known the seeds beaten into a mass with mucilage (a work of no small labour), and formed into pills, to act as a brisk cathartic, and to give complete relief in facial neuralgia. The acetum colchici of the pharmacopœias, neutralized with magnesia, and holding dissolved some sulphate of magnesia, is recommended by Sir C. Scudamore, in his Treatise on Gout, as the best formula. He says the combination is inoffensive to the stomach, and certain in its effects on the bowels. The dose recommended by him is half a drachm to one drachm and a half; and this, he says, never produces constitutional nervousness. I have taken two ounces, however, of the acetum colchici, within six hours, at two equal doses, without any other result than an intermitting pulse. A gentleman, labouring under gout, took, on my assurance of the feebleness of this preparation, no less than eighteen drachms of it, in divided doses, every day, for six days, without any obvious effects. Should Sir Everard Home's wine of colchicum ever come into use, and his authority ought to be sufficient warrant for its introduction, the apothecary should keep it in two states, one with the deposit, and the other without it. —*Braithwaite's Retrospect*, from *Dublin Med. Press.*

To cover Pills or Extract of Copaiba with Gelatine.—This process, invented by M. Garot, is exceedingly easy and practicable, and it is surprising that it is not employed more generally in this country, as it much more effectually disguises the taste and odor, and interferes less with the solution of the medicine than the method of gilding or silvering usually practised. It is applicable to every substance capable of a pillular consistence; such as balsam, camphor, musk, asafœtida, mercurial and ferruginous preparations, etc. Two hundred pills can be coated with gelatine in an hour, and will be ready for use after the lapse of two hours. The pillular mass so coated remains soft for a much longer time than according to any other plan. The process is as follows: fix the pills on long fine pins, plunge them into thick purified glue placed in a hot-water bath, then remove them by a rotatory motion, and stick the pins in paste spread out on a slab, so that the pills may remain elevated in the air: as soon as fifty are thus treated, rotate them individually in the heat of a taper, to harden the external pellicle; pull out the point of the pin, and the process is complete.—*Med. Gazette.*

TOXICOLOGY.

Case of Poisoning by Arsenic relieved by the use of Magnesia.—Mr. LEPAGE, apothecary at Gisors, states the following in a letter to M. Bussy, director of the School of Pharmacy, with a request that it may be laid before the Royal Academy of Medicine.

On the 30th of May, 1846, at six, A. M., Dr. Ardiege and myself were requested, by the Commissary of Police, to visit P. Delamotte, who, it was stated, had poisoned himself the evening previous. We found him suffering severely with pain, and his lips still covered with a whitish powder. On inquiring of him, as to the cause of this suicidal act, he stated that the evening previous, he had murdered a female with whom he had lived in adultery, and in order to escape the hands of justice had swallowed, at 11 o'clock, a large cupful of arsenic dissolved in water.

It appears that Delamotte had eaten a hearty supper previous to taking the poison. He had vomited and purged repeatedly during the night. His present condition is, a small irregular pulse, heat over the body, a sense of constriction in the throat, excessive thirst, horrible pain in the stomach and bowels, urine scanty and high coloured, respiration easy, but the patient is groaning incessantly.

We put in use the new method proposed by M. Bussy, and administered calcined magnesia suspended in water during ten hours (he took about 100 grammes), and under its effect we had the pleasure of observing all the alarming symptoms disappear; the colic ceased, he passed a quiet night, but without sleep, and the next day was convalescent.

During the administration of the magnesia the patient vomited frequently for the first six hours. The matters thus vomited were collected and thrown on a filter, and the transparent liquid was tested by the apparatus of Marsh, and large arsenical spots were produced.

From these results, the reporters are of opinion that magnesia thus given forms with arsenious acid, an arsenite *insoluble in water*, and that its efficacy as an antidote is hence unquestionable.

It is probable that Delamotte swallowed about fifteen grammes of arsenic. As a criminal, he was subsequently removed to prison and continued in good health until the fifth of June, when he was found dead, from hanging himself in his cell. T. R. B.

American Jour. of the Med. Sciences, translated from *Bulletin de l'Acad. Royale de Méd.*

On the Mode of Testing the Presence of minute Quantities of Alcohol. By Robert D. Thomson, M. D., Lecturer on Practical Chemistry in the University of Glasgow.—The determination of the presence of minute quantities of alcohol is a chemical point of some importance, especially in judicial cases. The usual method hitherto adopted for detecting alcohol in mixed fluids, is to subject the fluid suspected to contain it to distillation, at a temperature not greater than that which is required to cause the alcohol to pass over into a receiver and then to judge of the presence of spirit by the vinous odour of the distilled fluid. When alcohol, in the form of gin, whiskey or brandy, etc., has been swallowed, if death takes place within a short period of the introduction of the fluid, the odour of the spirituous liquors will be distinctly perceptible to one inspecting the interior of the stomach, but if a considerable time should elapse, as, for example, a few hours between the introduction of the spirit and death, it is rarely found that the smell can be detected. Again, if the person should die under the influence of spirituous liquors and the stomach were not examined within a limited period, the odour of alcohol might not be perceptible, since as absorption goes on for several hours after death, and as volatile fluids appear to be peculiarly susceptible of rapid absorption, the whole of the alcoholic fluid might be removed from the intestinal canal into the circulation. It has been affirmed that alcohol has been detected in the brain of gin drinkers, but as the mode of testing adopted was merely the impression made upon the nerves of smell, we may perhaps be allowed to doubt the accuracy of the experiment. It has been affirmed that the gin obtained from the brain has been inflamed, and if this were correct, we should then be entitled to quote nasal and ocular proofs of the presence of alcohol in the brain, but as the gin of the shops is so weak that, in its natural state, it will scarcely burn, we may also be permitted to be skeptical in reference to this second proof. These views do not tend to disprove the possibility of the presence of alcohol in the vessels of the brain and other portions of the body, because we know that hydrocyanic acid passes to the very extremities of the body and can be distinctly detected by its odour, until it has been either removed from the system by the combustion of respiration, or simply by exhalation from the lungs. Now alcohol and hydrocyanic acid are somewhat analogous in a chemico-physiological point of view, as they possess a powerfully sedative effect upon the system, are exceedingly volatile, readily absorbable, and require much oxygen to resolve them into simpler forms. For these reasons, it appears highly probable that alcohol may be capable of detection in the vessels of the system when it has been swallowed in large quantities. The experiment could, however, only be made on the inferior animals, and we should require some more definite test than the mere smell of the alcohol.

There are other circumstances, in a judicial point of view, in which it may be of importance to detect minute quantities of alcohol. For example, to distinguish small portions of the liquid preparations of opium. In medicine, there are used, the solution of opium in alcohol; the solution of opium in wine; the solution of opium in alcohol with benzoic acid and ammonia; the solution of opium in vinegar; and, lastly, the solution in water. When these preparations are entire, there is not much difficulty in their discrimination, but if they have been exposed to the air, much of the alcohol escapes, and they may all become analogous to a solution of opium in water. To distinguish those which contain alcohol from those which do not, enables us to divide them into two classes, and thus to simplify the inquiry. For these, and many other cases, where minute detection is necessary, I have been in the habit, for some years, of employing a method which depends upon a well known fact, the dehydrogenation of alcohol by means of oxygen. For this purpose, the fluid to be tested, if colored, or a mixed one, is to be distilled in the water-bath until one-third of it passes over. Should the liquor contain any acetic acid, this may be saturated previous to distillation with carbonate of soda, in order to remove the vinegar smell, which might interfere with the odour of the subsequent test. Into the distilled liquor supposed to contain alcohol, should be dropped a crystal or two of chromic acid and the liquor stirred. If the smallest quantity of alcohol be present, the green oxide of chrome will begin to be disengaged, and at the same time the smell of aldehyde is distinctly perceptible.

By means of this simple test, it is possible to distinguish a drop of alcohol in half an ounce, and even in an ounce of water. When chromic acid is not at hand, the experiment may be made with bichromate of potash and sulphuric acid. This perhaps affords the most distinct method of performing the experiment, and may be conducted as follows :—Drop in a few grains of powdered bichromate into a small flat glass (which tapers towards the bottom) containing the solution to be examined, and add a few drops of oil of vitriol. If alcohol is present, the green oxide will be observed to be developed on the surface of the undissolved salt, and the characteristic odour of aldehyde will speedily be perceptible.—*Monthly Journal of Medical Science.*

Condition of the Brain in Persons who die by Strangulation.—Dr. George Burrows, in his work on Disorders of the Cerebral Circulation, reviewed in our last number, makes the following important remarks :—

"It may now be affirmed that the encephalon is not exempt from this law in physics—the gravitation of the fluids to the lowest part of the corpse. The discovery of the operation of this force on the blood, within the cranium after death, suggests a precaution very essential to be followed, when it is desired to ascertain the precise amount of congestion of the cerebral vessels at the time of death. In such cases, a ligature should be placed round the throat of the corpse, and drawn sufficiently tight to compress the cervical vessels, and arrest all flow of blood through them. This precaution will be most required in the examination of bodies where, from the kind of death, the blood may be suspected to remain fluid in the heart and great blood-vessels. The depending or elevated position of the head, during the examination of the body, will not then induce deceptive appearances, which mislead us in our conclusions as to the previous amount of congestion in the cerebral vessels."

This caution, (says the reviewer,) is rendered the more necessary, because the non-congested state of the brain, which has been observed in persons who have been hung or strangled, has been adduced in proof of the iatro-mathematical proposition, (viz., that of a fixed quantity of blood circulating within the cranium). But Dr. Burrows shows that the brain may, or may not be congested, according to circumstances, and these circumstances consist in the mode in which the strangulation is effected, and in the anatomy of the cerebral vessels. He thus accounts for the occasional absence of cerebral congestion in those who have suffered death by hanging.

"When criminals are hung by the executioner, the knot of the rope is usually adjusted on one side of the neck, and it is found, after death, beneath the ear, resting on the mastoid process. It has been often observed, in the dissection of such criminals, that the cheek and integuments on this same side of the head are not near so livid and congested as on the other side. The pressure of the rope has not completely obstructed the return of blood through the external jugular vein on the one side, although it has effectually stopped the current on the other. In such cases, it is probable, that the deep-seated internal jugular vein on the one side has only been partially compressed, and has permitted, to a certain extent, the return of blood from the internal parts of the cranium.

"But there is another still more efficient cause of this occasional absence of congestion of the cerebral vessels after death by hanging ; it is the subsidence of the *fluid* blood after death, while the body is yet suspended, through the cervical vessels which are not completely obliterated by the pressure of the cord. And it should be recollected that there are some channels which are scarcely, if at all, affected by the compression of the rope. These other channels are the vertebral sinuses and spinal plexus of veins, so ably delineated by M. Breschet."

The sinuses of the cranium may also be drained otherwise than through the vertebral sinuses. In examining the bodies of those who have died by strangulation, the great vessels of the neck are usually cut across to get at the thoracic viscera, and then when the head is elevated to open the skull, the blood gravitates and flows from the cut ends, and the blood-vessels, (previously congested,) are rendered comparatively empty. Dr. Burrows further observes, in proof of this explanation, that in other instances, where life has been destroyed by obstruction of the respiration, congestion is usually present.—*Amer. Jour. Med. Sciences*, from *Brit. and For. Med. Rev.*

Case of Fracture of the left Parietal Bone, from the Expulsive Action of the Uterus.—By T. B. Wharrie, M. D., Hamilton.—The body of a child having been found secretly buried near the Calder, it was reported to the Fiscal; when Mr. Jameson, surgeon at Beltshill, and I, were appointed by the sheriff to make a post-mortem examination of the body. There was handed over to us a coarse deal box, nailed up, on opening which we found the body of a female child, wrapped up in some clothes. Before proceeding to dissection, we carefully examined it, and observed no marks of injuries, except that the cranium near the posterior fontanelle had a puffy feel, as if from containing extravasated blood; and, when pressure was made upon the forehead, blood issued from the right nostril. The muscular substance of the body was firm, but the cuticle in parts easily peeled off, as if from incipient putrefaction; from the weather being cold, we conjectured that two or three weeks had elapsed since delivery. The navel-cord was cut and tied, six inches of it still remaining attached to the body. The child weighed seven pounds, and measured in length twenty-one inches. The chest had a flat appearance, and there were no marks around the anus of meconium. On opening the body, we found the lungs of a dark color, with their edges sharp, occupying but a small space in the posterior part of the chest, and not covering the heart or pericardium, and the diaphragm was arched upwards. The lungs, with the heart, being removed from the body, and placed in water, sunk to the bottom of the vessel; both lungs, previously cut into pieces, were then subjected to the same trial, and all of them immediately sunk; none of these portions had the slightest crepitous feel, nor did they emit air-bubbles when pressed; the pulmonary vessels appeared also to contain very little blood. There was no blood in the right side of the heart, but a small quantity was found in the left side, and the foramen ovale was open. We examined the mouth, windpipe, and gullet, and found all of them in a natural state. On proceeding to dissect off the integuments from the scalp, we found on the left side of the head about two teaspoonfuls of blood extravasated under the pericranium, (at that part of the head which felt puffy previous to dissection,) there was also a little blood, though smaller in quantity, effused immediately adjoining this on the right side of the head. On removing the blood on the left side, we discovered a fissure fully half an inch in length, in the edge of the left parietal bone, close to the line of the sagittal suture, and near the posterior fontanelle. There was not the slightest depression of the bones at the seat of injury, nor, on minutely examining the scalp, by shaving off the hair, could we detect any discoloration, or the slightest mark indicating a blow. The brain was rather in a soft state; there was no extravasation of any consequence upon its surface or within its substance, but the extremities of some of the blood-vessels seemed to have given way to a trifling extent. From the size and general appearance of the child, there could be no doubt that it was born at the full period of pregnancy, and it was also quite evident it had not respired, not even feebly. The important question comes to be—What was the immediate cause of death? I suspect simply the violent expulsive efforts of the uterus, forcing the child forward, and producing severe pressure on the cranium; or it is possible a portion of the navel cord might have fallen down and been compressed. At all events there were no marks by which the woman could be accused of infanticide, nor, as afterwards appeared, of concealment of pregnancy. The mother in her declaration said: "That she was 28 years of age, was never married but had borne three children, her last only still-born, and that its birth took place about a month previous to her examination; that she was in labor from Saturday afternoon till Tuesday morning about 11 o'clock; she was very ill from Monday night, but, until that time, she was only in a lingering way, and there was no person attending her during all the time except her mother, as she had no money to pay for a doctor or midwife; that she knew her mother could do anything that was required, as she had been with women before, and herself when she had her other two children, assisted by neighbours; her mother was the only person present at the time when the child was born; that it was laid on the bed till the old woman hurried out for two neighbors." These neighbors declared they never saw the child move. She further said, that they kept the dead body till Thursday morning, having no money to pay the expense of burying it; her brother made a box, into which it was put, and her mother carried off the box, saying "she would bury it at the side of the Calder till she got 'baubees' to bury it regularly;" but in the mean time it was accidently discovered. On the whole affair being properly investigated, and the precognition taken sent to the Crown Council, the opinion given was, that there ought to be no further proceedings.—*Monthly Jour. of Medical Sciences.*

Poisoning by Cantharides.—The following French case is curious, from the repeated attempts made to destroy life. The accused was a man, aged forty-one years, a carpenter by trade, and of an appearance, gestures, and conversation, nearly verging to idiotism. His attempts were made on a step-brother, named Hervonet.

During May, 1846, Hervonet, shortly after eating some soup, which tasted extremely bitter, was seized with violent pain in the stomach and bowels; he could not pass urine, but with extreme pain, and the quantity discharged was small and bloody. After suffering several hours, he was enabled to sleep, and on waking, found himself much better.

He had no suspicion of the cause of this illness, but during the night of the fifth of July, he was seized with similar symptoms. Two hours previous, he had eaten soup of similar bitterness to the last. This time, his sufferings were more severe and longer continued, and they only yielded after copious draughts of oil and sweet milk, which excited copious vomiting. Even yet he had no idea of any intent at poisoning.

On the evening of the twelfth of July, he found in his soup, a black substance which at first he supposed to be fragments of vegetables. A portion of this adhered to his palate, he detached it with his finger, and examined it by the light, but could discover nothing certain, except that the taste was precisely similar to that experienced in the two previous instances. The next morning, he was impressed with the idea that it was cantharides, and all doubt was removed on showing it to M. Drew, a medical man, who also informed him that two days previous he had seen his step-brother purchasing medicines from an apothecary.

Hervonet denounced his brother to the authorities, and as soon as Poirier heard of the charge, he fled, but was soon retaken. He confessed that he had purchased a blistering plaster on the tenth of July, and mentioned where he had hid it. On obtaining it all the plaster was found scraped off. It was also proved that he had made several purchases of the same nature, and an apothecary deposed, that one of the plasters sold contained two grammes of cantharides.

The character of Poirier was proved to be extremely bad—a thief—of idle, loafing habits, and a burden to his relatives. His father, aged eighty.

had given his property to his son-in-law and daughter, leaving Poirier only an allowance.

The jury found him guilty, and he was condemned to death, but scarcely had sentence been pronounced, before eleven of the jurymen united in a petition for a commutation of punishment. His apparent idiocy seems to have been the ground for this. T. R. B.

American Jour. of Med. Science, translated from *Gaz. des Tribunaux.*

MISCELLANEA.

Abstract of Researches on Magnetism and on certain allied Subjects; including a supposed new Imponderable. By Baron Von Reichenbach. Translated and abridged from the German, by Wm. Gregory, M.D., F.R.S., Prof. of Chemistry, &c.—The most extraordinary work that has been for many years issued from the press, is that, the title of which we have just given. It professes to give an account of the discovery of a "new imponderable," through which we are to realize a clear and satisfactory solution of many problems in the mental and physical constitution of man, which have puzzled mankind from the earliest ages. The statements it contains are, if possible, more startling and incredible than those made by Hahnemann, in relation to infinitesimal doses, or of Elliotson and others, respecting mesmerism. Nevertheless the high reputation of the author and that of his learned translator and annotator, seem to justify our occupying a few pages with an account of the Baron's supposed discoveries. Neither the original work nor the translation has as yet reached us, but we are enabled to collect from the abstracts in *Ranking's Half Yearly Abstract*, for July, and in the *Edinburgh Med. and Surg. Journal*, for April last, a sufficiently full sketch of these revelations to satisfy our readers.

Baron Von Reichenbach thinks he has demonstrated that magnets act on the human body, especially in certain conditions; and further, that he has demonstrated the existence, *in magnets*, of two forces, one which attracts iron and effects the needle, and one which acts on the nervous system, and which he has found unmixed *in crystals.* This new power, which he is disposed to view as the true agent in animal magnetism, he says, "is transferable from one body to another, and is conductible through matter. A body may be, for a time, charged with it, and this is the true explanation of the fact, now demonstrated by the author, that a glass of water, as stated by Mesmer and his followers, may be magnetized by contact with a magnet, although that term is improper.

"But perhaps the most striking characters of this new power are, that it assumes, like electricity and magnetism, a polar arrangement in bodies, and that bodies charged with it are luminous, especially at the poles. The light, it is true, is only visible to certain sensitive individuals; but not only are such persons of tolerably frequent occurrence, but the author has gone far towards demonstrating, that, although invisible to ordinary eyes, actual light, nevertheless, does emanate from the poles of powerful magnets.

"The author finds the new power in many unsuspected quarters, in the sun's rays, the moon's rays, heat, electricity, friction, and, above all, chemical action; and the numerous and beautiful applications which at once suggest themselves, give a tenfold interest to this part of his researches. The human frame, especially the hand, whether in virtue of the incessant chemical changes going on in the body, or independently, is a rich source of the new power."

The new influence which the author thinks he has detected in magnets, in crystals, in light, heat, electricity, and chemical action, is due, he confesses, to the existence of his "new imponderable."

"Magnets of 10 lb. supporting power," says the author, "when drawn along the body, downwards, without contact, produce certain sensations in a certain proportion of human beings. Occasionally in 20, 3 or 4 sensitive individuals are found; and in one case, out of 22 females, examined by the author, 18 were found sensitive. The sensation is rather unpleasant than agreeable, and is like an *aura*, in some cases warm, in others cool; or it may be a pricking, or a sensation of the creeping of insects on the skin; sometimes headache comes rapidly on. These effects occur when the patient does not see the magnet, nor know what is doing; they occur both in males and females, although more frequently in females: they are sometimes seen in strong healthy people, but oftener in those whose health, though good, is not so vigorous, and in what are called nervous persons. Children are frequently found to be sensitive. Persons affected with spasmodic diseases, those who suffer from epilepsy, catalepsy, chorea, paralysis, and hysteria, are particularly sensitive. Lunatics and somnambulists are uniformly sensitive."

Healthy sensitive persons observe nothing further than the sensations above noticed, and experience no inconvenience from the approach of magnets. But the diseased sensitive subjects experience different sensations, often disagreeable, and occasionally giving rise to fainting, to attacks of catalepsy, or to very violent spasms. In such cases there occurs an extraordinary acuteness of the senses; smell and taste, for example, become astonishingly delicate and acute. The patients hear and understand what is spoken three or four rooms off, and their vision is often so irritable that, while on the one hand they cannot endure the sun's light or that of a fire, on the other, they are able, in very dark rooms, to distinguish not only the outlines, but also the color of objects, where healthy people cannot distinguish anything at all.

The author's first series of recorded experiments refer to the appearance of light, visible only to the sensitive, at the poles and sides of powerful magnets. One of the persons experimented "saw a flame with play of colors, shooting out rays as large as the magnet, that is, about ten inches high; also side flames from each plate of the magnet, and a general weaker light over the whole surface at the junction of the plates." When the memoir was printed he had met with six sensitive persons who saw more or less vividly this luminous appearance; the number, last February, amounted to twenty-three, including not merely girls, but men and matrons. To prove that this was real actual light, he shows that it acts on the sensitive plate of the daguerreotype, and is concentrated by a lens. It gave out no perceptible heat; at least none sufficient to affect Nobili's thermoscope.

The *magnetic flame* is to be distinguished from the *magnetic light*. The former is flickering and does not radiate; the latter radiates strongly. The flame yields like other flames when blown on, and when solid bodies are introduced into it. It would, therefore, appear that the light is distinct, imponderable; but that the flame is probably compound, consisting of a material substance along with the imponderable light. The author proceeds to enter into a long description of the aurora borealis, and of the very similar appearances described by the patients. Without regarding the identity as proved, there are very strong reasons for believing it probable.

He then proceeds to show that in certain diseases, especially catalepsy, an attraction subsists between the hand and a magnet.

"Mlle. N. being in catalepsy, insensible and motionless, but free from spasms, a horse-shoe magnet of 20 lb. power was brought near to her head, when the hand attached itself so to the magnet that whichever way the magnet was moved the hand followed, as if it had been a bit of iron adhering to it. She remained insensible, but the attraction was so powerful that when the magnet was removed in the direction of the feet, further than the arm could reach, she, still insensible, raised herself in bed, and with the hands followed the magnet as far as she possibly could, so that it looked as if she had been seized by the hand, and that member dragged towards the feet. This was daily seen by the author between six and eight, P.M., when her attacks came on, in the presence of eight or ten persons, medical and scientific men. At other periods of the day, when she was quite conscious, the phenomena were the same. She described the sensation as an irresistible attraction, which she felt compelled against her will to obey. The sensation was agreeable, accompanied with a gentle cooling aura, streaming or flowing down from the magnet to the hand, which felt as if tied and drawn with a thousand fine threads to the magnet. She was not acquainted with any similar sensation in ordinary life." Similar results were obtained in other cases; in one case (the one quoted) a certain amount of attraction was also observed in the foot, but far weaker. It was found that the hand of the cataleptic patient had no attraction for iron filings, did not in the least affect the needle, and excited no appreciable attraction on a magnet, which was counterpoised on the beam of a balance, and brought near to the hand, although it required some force to prevent the hand from rising to the magnet. That is to say, while the magnet attracted the hand, as it were vitally, the hand did not attract the magnet statically.

The author, although strongly prejudiced against the idea of magnetized water being recognizable, was yet compelled to admit what he saw daily in many patients, that they could easily distinguish a glass of water along which a magnet, unknown to them, had been drawn, and this without failure or hesitation. A magnetized glass of water was found to possess the property of attracting the hand of Mlle. N.; this took place whether she was in a state of catalepsy or not.

All sorts of minerals, preparations, drugs, in short, objects of all kinds were then magnetized in the same way as the water, by drawing, or passing the magnet along them, and being tried, was found to act as the water had done, more or less powerfully. Some of these caused spasms over the whole body, others only in the arm, others again only in the hand, and lastly, others not at all. The same substances were then tried in their natural condition, without being previously magnetized.[1] They were still found to act with a power often little inferior to that which they had when magnetized. It was observed that the effect in the cataleptic state was much more distinct and powerful than when the patient was in the normal condition. On comparing the bodies employed, it was found that all those bodies which were clasped convulsively in the hand (the active group) included all loose single crystals, and groups of crystals, with their chief axes parallel, as celestine, gypsum, red and brown hæmatite, &c. The active substances were also beautifully crystallized, and he divides them into three classes: *a*, such as caused the fingers to close on the body with hardly perceptible spasm: *b*, those which caused the hand to be closed with spasm, but did not attract it to follow; and *c*, those which caused the hand to contract with violent spasm, and attracted it also when made to pass near it. For the list of substances employed we must refer to pp. 16, 17, of Dr. Gregory's Abstract.

The general result of these experiments is that distinct solitary crystals appear to possess a power of a peculiar nature, not previously noticed, and apparently dependent on the structure of matter, namely, on the arrangement of the particles. The author found that about one-half the persons in the neighborhood were more or less sensitive to crystals. The crystals should be large, single, with natural acuminations; heavy spar, fluor spar, gypsum, and rock crystal are the best. They must be drawn as near the inner surface of the hand, as possible, five seconds being taken to a streak, and held perpendicularly. The sensation is cool when the streak on the hand is made downwards, and warm and very disagreeable (so as even in some cases to cause spasm) when it is made upwards. The conclusions to be deduced from this section, and which, according to Reichenbach, may be regarded as established, are—

1. Every crystal, natural or artificial, exerts a special action on the animal nerves, feeble in healthy persons, powerful in many diseased individuals, strongest of all in cataleptic cases.

2. This influence is seated chiefly in the axis of the crystal, and being most active at the opposite ends of the axis, is consequently polarized.

3. At the poles, light is sent forth visible to eyes rendered preternaturally acute by disease, especially of the nervous system.

4. In certain disorders, the crystal attracts or solicits the hand of the pa-

tient by a kind of attraction, analogous to that of the magnet for iron. But this force is in many important points altogether distinct from magnetism.

5. The force may be transferred to other bodies which may be charged with it by contact. Different bodies conduct it with different degrees of facility.

6. The force differs qualitatively at the opposite poles; at the — M pole causing a sensation of coldness, at the + M pole, one of warmth. Quantitatively the — M pole (pointing in the magnet to the north) is weaker than the + M pole.

The author then proceeds to show that the system of sensitive persons is affected by terrestrial magnetism. He felt, *à priori*, assured that if a magnet or a crystal produces so decided an effect on the system, the magnetism of the earth, which gives the needle its direction, must likewise influence the animal nerve. Trials were then made on MM. Schuh and Schmidt, surgeons, as well as on many other persons, in different circumstances and at different times. "M. Schuh had, in the house then inhabited by him, the singular custom when he awoke early in the morning of regularly turning himself in bed so as to place his head where the feet had been; on doing this he invariably fell asleep again, and this second sleep, contrary to the usual opinion, was to him far more refreshing than the whole sleep preceding it. If he omitted this, or lost his second sleep, he felt weary all day, and thus this strange custom had become a necessity for him. The author inquired and found that the head of the bed was directed to the south, the feet to the north. He advised the turning of the bed into exactly the opposite position, with the head towards the north, and from that time the necessity for the second sleep never returned, the ordinary sleep was refreshing and sound, and the custom above mentioned at once given up." Seven other much more marked cases are given; they all agreed that lying in any position except from north to south is highly disagreeable, but that from west to east almost intolerable. The cause of these phenomena can only be found in that great magnet which is formed by the earth with its atmosphere, that is, terrestrial magnetism. Reichenbach lays it down as a law, that "terrestrial magnetism exerts on certain persons, both healthy and otherwise, who are sensitive, a peculiar influence, powerful enough to disturb their rest, and in the case of diseased persons, disturbing the circulation, the nervous functions, and the equilibrium of the mental powers." Since terrestrial magnetism is subject to variations connected with the lunar phases, some light is partially thrown on one of the causes influencing insanity. The author likewise shows that his observations regarding the influence of terrestrial magnetism afford a clue to many of the discordant results of the animal magnetism. His next important conclusion is, that the peculiar force of magnets and crystals exists in the human hand, and is analogous to magnetism. When he caused his fingers of the right hand to follow each other in a line down the middle of the inside of the hand, but not in contact with it, all those who were sensitive to the magnet felt either a cool or a warm aura; and that generally more distinctly than in the case of a crystal. Indeed many healthy persons were sensitive to this influence; amongst others, M. Schuh, M. Studer, and M. Kotschy, the African traveller, all healthy vigorous men, the latter a rare specimen of manly vigour and hardy constitution. We have only space for the general conclusions of this section, which are—

1. That the hand, passed over sensitive patients, acts on them like the poles of crystals.

2. That the power which here acts is conductible through all bodies like the force of crystals, and that it likewise resembles this force in its capability of being collected in other bodies, and in its disappearance from those bodies in a short time.

3. That this force is polarized in the human body, as the other is in crystals, and that both are alike uninfluenced by the earth's magnetism.

4. That this force exercises a mechanical attraction on the hands of cataleptics, as does the force of crystals.

5. That this force exhibits beautiful luminous phenomena, visible to the

sensitive, of the same kind and strength as those exhibited by the force of crystals. The author promises to give drawings of these beautiful appearances with a future memoir. It is worthy of remark that Professor Gregory, two years ago, and consequently long before he had heard of Reichenbach's observations, often saw a lad who in the mesmeric state observed flames issuing from the point of his (the Professor's) fingers.

In section four are considered further sources of the new power; the sun's rays are shown by some beautiful experiments to yield it, and that moonlight, although it conveys no heat, possesses a powerful hidden influence similar to that which resides in crystals, magnets, the human hand, and the sun's rays. Heat, friction, and artificial light are other sources of it.

The most important points of section five are the following:

1. Chemical action as well the ordinary kind as that connected with combustion and the galvanic pile, is a comprehensive source of the magneto-crystalline force.
2. The most insignificant chemical action is sufficient to develop it abundantly, to charge surrounding objects with it, to exhihit polarity, to produce light, etc.
3. The magnetic baguet of Mesmer and his followers most probably developed this force in consequence of chemical action.
4. Digestion and respiration, and, in general, the change of matter in the animal body, being chemical processes, are the sources of the magnetic influence which exists and acts in the human frame.
5. The ghost-like luminous appearances that have been observed above graves, although unseen by most healthy persons, do really exist, are of a purely physico-chemical nature, but can only be seen by the highly sensitive.
6. Electricity is also a source of the power which resides in crystals, etc. This is true hoth of friction-electricity, positive and negative, and of contact-electricity, and even the electric atmosphere is capable of setting this force in motion at considerable distances.

In the remainder of the memoir he shows that all bodies in some degree contain the new force; that they cause heat and cold, and are luminous to the sensitive, but that the light is variously coloured; that the amount of the new force in the hand varies at different hours; and finally, in what manner the foregoing facts may be applied to the preservation of the health.

These supposed discoveries have excited vast interest in Europe, as is shown by the extent to which they have been quoted and reviewed in various journals. Some respectable reviewers have even thought them worthy of credit, and those even who were very justly skeptical, have at least thought them entitled to consideration and examination. Mr. Braid has repeated many of them, and the results of his experiments will be found in the succeeding article.—*American Jour. of Med. Science.*

Clinical Notes taken in the Parisian Hospitals.

Articular Dropsy.—Large doses of tartrate of antimony is a valuable remedy in cases of articular dropsy. Besides the remarkable cases of cure recorded by M. Gimelle, we have just observed another in the service of M. Velpeau at La Charité. It was that of a young female cook, in whom the disease had existed in the right knee for six months, with pain, without fever. M. Velpeau ordered the medicine in a drink, in the progressive dose of 4, 6, and 8 grains in the twenty-four hours. The disease disappeared in fifteen days. The patient only vomited during the first two days.

Cod-liver Oil.—The oil now administered in the hospitals of Paris does not contain one atom of iodine. M. Rayer has just caused an analysis to be made, without a trace of it having been found. It is probable, therefore, that the therapeutic effects of this substance depend on its being purely and simply a fatty body.

Nitrate of Silver Injections in Chronic Diarrhœa.—The chronic diarrhœa which accompanies phthisis or enteritis, or which follows typhoid fever, yields for the most part to the use of injections composed of 10 grains of nitrate of silver, dissolved in a quart of water. If a metallic syringe be used, care must be taken not to allow its remaining in the instrument any time, or a chemical decomposition will take place. The injection may be retained or returned without any inconvenience, the antiphlogistic effect of the remedy is produced in either case. This practice has never given rise to accident. (*Guérard.*)

Frictions of Croton Oil in Phthisis Pulmonalis.—In cases of pulmonary phthisis, the patients are much benefited by abundant frictions on the chest with croton oil. Twenty-four drops may be prescribed for each friction without danger. The patient should drop it gradually on the chest, and employ friction with the palm of his hand. Pustules do not form on the hand, this region having no follicles, and the epidermis being very thick. This practice considerably relieves the dyspnœa, the nocturnal restlessness and fever; but it has the inconvenience of being expensive, especially in pauper practice. (*Rayer.*)

Sulphate of Iron in Chlorosis.—The sulphate of iron being a more soluble preparation, is more useful than the subcarbonate. It may be given in the following form: sulphate of iron, 18 grains; distilled water, 6 ounces. A table-spoonful to be taken morning and night. Each dose contains a grain and half of the salt. (*Briquet.*)

Paralysis of Sensation.—This form of paralysis is less dangerous than that of motion, inasmuch as it is cured with less difficulty. In fact, it is almost always curable, and generally follows hysterical affections. (*Cruveilhier.*)

Typhoid Deafness.—It is rare that the deafness which succeeds or accompanies typhoid fever is not cured in the end by the efforts of nature alone. Hence it does not demand a special treatment, unless accompanied by otorrhœa. (*Rostan.*)

Mercurial Ointment and Bleeding in Variola.—In variola it is impossible to recommend too much the mask of mercurial ointment, rendered solid by means of starch powder, and applied once or twice a day. A thick layer of this substance should be spread with the fingers on the forehead, cheeks, eyelids, ears, &c. Under such circumstances the pustules abort in these places; the eyes are perfectly preserved by it; the face, nose, and lips do not undergo that horrible swelling so common in confluent smallpox, and the patients feel refreshed by each application of the ointment. It is truly a precious remedy, not only as a means of preventing cicatrices, but as a safeguard to the eyes, while it diminishes the smarting pains so frequently present. (*Briquet.*)

We have frequently seen these results in the service of M. Briquet. There is, however, another point to which we are desirous of directing attention;—we allude to the importance of repeated bloodletting in the variola of adults. We have lately seen two robust young men fall victims to smallpox at La Charité after a week's illness. Because bleeding in children has not been followed by good results, medical men are afraid to employ it in the adult. But in the hospitals of Italy we have seen bleeding generally practised in the variola of *adults*, especially at its commencement, not once, but four, five, and six times, always with benefit. It is not blood-letting, but the disease which kills, in cases which go badly. Bleeding can only facilitate the march of the eruption. Some have feared purulent absorption, but this is a theory. In one of the two patients of whom we have spoken, several vaccine inoculations on the forearm were made at an early period, without any effect.—*Month. Jour Med Science*, from *Annales de Thérapeutique*.

Funeral of Professor Tommasini.—The funeral of the late Prof. Tommasini is said to have taken place recently at Parma with imposing splendour. The whole of the court, and more than three hundred families of distinction, were present at the ceremony. The members of the various medical faculties, and all the dignitaries in the army and in the state, were among the followers. The leaden coffin was borne to the church of the Campo Santo by the students of the Faculty of Medicine. The funeral took place at night, and as the procession passed through the streets, the front of each house was illuminated by torches, the last testimony of the sorrowful respect and gratitude of a nation.—*London Med. Gaz.* from *Gaz. Med.*

Pettenkofer's Adhesive Plaster.—Pettenkofer employs the oxide of calcium (lime) instead of the oxide of lead, the former being perfectly harmless, while the latter is sometimes injurious to the system; hence, instead of an oleate and margarate of lead, he obtains an oleate and margarate of lime. The lime-soap is, however, only the vehicle for the adhesive material—boiled turpentine. Turpentine purified in this manner is very adhesive at the temperature of the skin, no longer emits any volatile oil, and is perfectly insoluble in water. One part of lime-soap is mixed with half a part of turpentine, and with one-eighth of tallow. These must be boiled in water till they fuse into a homogeneous mass, which must be subsequently treated with cold water. If any fragments of the lime-soap remain undissolved, the mass must be strained through a woolen cloth. In boiling water the lime-salt does not fuse, but merely softens, but in boiling turpentine it dissolves perfectly and readily. On cooling, the turpentine and the lime-salt dissolved in it, solidify together.

To prepare the lime-soap mix ℥ j.–ʒ ij. of freshly-burned lime, ʒ vj. of water, ℥ vj. of olive oil, and expose them to a temperature of 200–212° F., stirring them with a wooden rod, and occasionally replacing the water lost by evaporation. In the course of from eight to twelve hours a yellowish-white lime-soap is formed, which must be removed from the water and dried.—*Ranking's Abstract.*

Medical Controversies.—Dr. Cheyne remarks, in reference to a work which he wrote against a treatise by M. De Moivre, that, "Being written in a spirit of levity and resentment, I most sincerely retract and wish undone, so far as it is personal or peevish, and ask him and the world pardon for it, as I do for the defence of Dr. Pitcairn's Dissertation on Fevers against the late learned and ingenious Dr. Oliphant. *I heartily condemn and detest all personal reflections, all malicious and unmanly terms, and all false and unjust representations*, as unbecoming gentlemen, scholars, and Christians, and disapprove and undo both performances, as far as in me lies, in everything that does not strictly and barely relate to the argument."—*Life of Dr. Cheyne.*

Many modern controversialists of the medical profession might profit by the example of this candid old physician of the seventeenth century. Nothing can more strikingly show the absurdity of indulging in violent controversies on medical subjects, than the utter indifference of another generation to them, and the complete oblivion into which they sink in the course of a few years. But medical writers are of an *irritabile genus*; and it is a rarity to meet with such an example of candour and good feeling as that shown by Dr. Cheyne. —*London Med. Gaz.*

Secret of Success in Medical Practice.—Skill and art alone are not sufficient. He (a medical practitioner) must be particularly mindful of his conduct. It is this which recommends him to the public, and creates confidence; for as the generality of people are incompetent to pronounce on his science, it is natural for them to take the measure of his ability from the measure of his conduct. By force of conduct alone, a physician, of very moderate talents, may become the favorite of the public; and without it, the most skilful professional man remain unnoticed and unappreciated.—*London Med. Gaz.* from *Hufeland.*

OBITUARY.

Death of Dr. Sinkler, one of the Editors of the Southern Journal of Medicine and Pharmacy—With feelings of unmingled grief we announce to our readers the death of one of the late editors of this Journal, Dr. Seaman D. Sinkler. Attacked, for the first time, and while in the apparent enjoyment of health, and in the discharge of his professional duties, in November last, with hemorrhage from the lungs; he rapidly fell a victim to that most inexorable of human maladies, phthisis, and expired on the 19th of January, 1847, in the 31st year of his age.

To those who knew him, eulogy from us would be useless. His manly virtues, mental acquirements, professional learning, and zeal, caused him to be respected and loved wherever he was known. After a severe course of study in this city, Philadelphia (at whose university he received his degree of M.D., in 1837), and Paris, Dr. Sinkler commenced the practice of his profession in Charleston, in 1840. His career here was marked by unusual success. As a surgeon he had already performed many of the more important operations; as a physician he was kind, attentive, prudent without being timid, and skilful, and his devotion to his profession, in every branch, was unbounded and entire.—*Southern Jour. Med. and Phar.*

Death of Professor Tommasini.—We have this week to announce the death of the celebrated Italian Professor, Tommasini. He was born at Parma, in the year 1769, and died in that city on the 26th of November last, in the 77th year of his age. Professor Tommasini had for many years enjoyed a European reputation; and he was well known as the originator of peculiar medical doctrines which now form the basis of Italian medical practice. We hope hereafter to be able to furnish some particulars of the life and labors of this eminent man.—*London Med. Gaz.*, Dec. 25, 1846.

Death of M. Labat.—At Nice, on the 16th of January, in the forty-fourth year of his age, M. Leon-Mirza Labat Khan, Doctor of Medicine of the Faculty of Montpellier, and Chief Physician to the Shah of Persia. This gentleman, well known in the literary world, acquired celebrity from his travels in the two Americas, Africa, Greece, Turkey, the Holy Land, and Egypt, where he was made Chief Surgeon to the Viceroy. He was for four years Chief Physician to the Shah of Persia, who among other honors created him Mirza, a rank only inferior to that of Princes of the blood. M. Labat was the author of several works; among others, of a Treatise on Rhinoplastics, a History of Mehemet Ali, a Treatise on Medicine and Hygiene among the Arabs, &c.—*Ibid.*

Death of Joseph Hume.—On the 18th of October last, at Thornbury, in his 91st year, Joseph Hume, Esq., for many years a scientific and practical chemist in London. and corresponding member of most of the learned societies of Europe. Mr. Hume was well known as the discoverer of an improved method of detecting arsenic. He first introduced what is called the silver test, which is still designated Hume's test, and is much employed by toxicologists.—*Ibid.*

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ERRATA.

On page 370, in the notice of Annals of the Lyceum of Natural History, 2d line of the article, for "Grodeph Agous" read "Geodephagous."

Dr. Batchelder on Tumour, page 30, sixteenth line from the bottom, for "jugular fascia" read "jugular fossa."

Page 32, seventh line from the top, for "body inclined," &c., read "head inclined," &c.

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